

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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No. 2503.—Vol. LIII.

LONDON, SATURDAY, AUGUST 11, 1883.

WITH SUPPLEMENT. PRICE SIXPENCE BY POST, £1 4s. PER ANNUM

MR. JAMES H. CROFTS, STOCK AND SHARE BROKER
AND MINING SHARE DEALER.
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

Business negotiated in Stocks and Shares not having a general market value.

Every Friday a general and reliable List issued (a copy of which will be forwarded on application), containing closing prices of the week. MINES INSPECTED.

BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUUSTELL. TELEPHONE NUMBER 1003.

SPECIAL DEALINGS in the following, or part:—
60 Asia Minor, 30 Gunnis, (Cilt), £13 1/2
60 Almaden, 11s. 100 Hingston Down, 4s.
20 Bedford Uni., £1 13 9 100 Hoover Hill, 4s. 3d.
30 Bratsberg, £2 6s. 3d. 25 Home Mines Trust, 11s
150 Bwlch United, 3s. 20 Herodfoot, 6s. c.p.
20 Carnarvon Cop., 2s. 6 75 Indian Consol., 2s. 6
50 Callao Bis, 15s. 9d. 50 Indian Glenrock, 2s. 6
50 Chile Gold, 13s. 9d. 25 Indian Phos. ix, 2s. 6
30 Colombian Hyd., 5s. 9 50 Indian Trevel, 2s. 6d
75 Consolidated, 2s. 6d. 40 Kapanga, 7s. 6d.
70 California, 18s. 9d. 25 Killifreth, £2 5s.
50 Colorado, £1 7s. 50 Kit Hill, 2s. 6d.
30 Canada Copper, 15s. 80 La Plata, 19s.
100 Cor. So. Austr. Cop., 12s. 50 Langford, 4s.
100 Devala Cen., 2s. 50 Last Chance, 2s. 6d.
20 Devala Moyer, 2s. 9d. 20 Leadhills, £2 1/2
20 Devon Consols, £3 12 6 20 Marke Valley, 17s. 6d
75 Devon Friend., 4s. 3d 10 Mona, 4d.
50 Devon United, 4s. 3d 50 Mounts Bay, 7s. 3d.
50 Don Pedro, 2s. 50 Mysore Gold, 5s.
50 Drakeville, 5s. 100 New Caradon, 5s. 3d.
50 East Blue Hills, 6s. 50 New Callao, 9s.
50 Eberhardt, 6s. 3d. 30 New Emma, £1 16s 3
20 East Caradon, 11s. 6d. 50 New Quebrada,
75 East Chiverton, 25 New Kiddy, £2 1/2
50 E. Craven Moor, 100 New Herodfoot,
25 East Lovell, 6s. 100 Nouv. Monde, 9s. 3d.
100 East Wh. Rose, 11s 6 20 North Penrithal,
30 Flagstaff, 5s. 6d. 15s. call paid.
50 Frongoch, 17s. 6d. 25 New W. Caradon, 6s.
100 Frontino, 12s. 50 Old Shepherds, 5s. 6d
25 Goginan, 10s. 100 Oregon, 1s. 3d.
50 Gold Coast, 17s. 50 Organo, £1 11s.
50 Grogwinlon, 13s. 50 Orita, 13s. 9d.
25 Guinea Gold Est., 6s 3 50 Polrose, 4s.
20 Great Lacey, £16 1/4 50 Penhalla, 7s. 6d.
40 Gawton, 5s. 100 Potol, 10s.
100 Port Phillip, 2s. 6d.

* * SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

* * SPECIAL BUSINESS AT CLOSE PRICES IN ALL MARKET TIN, COPPER AND LEAD SHARES.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

RAILWAYS—SPECIAL BUSINESS.—Fortnightly Accounts opened on receipt of the usual cover.

FOREIGN BONDS—SPECIAL BUSINESS.—Fortnightly Accounts opened on receipt of the usual cover.

AMERICAN AND CANADIAN STOCKS AND SHARES—SPECIAL BUSINESS.—Fortnightly Accounts opened on receipt of the usual cover.

GOLD AND SILVER MINES.—SPECIAL BUSINESS IN ALL marketable INDIAN GOLD SHARES, and in California, Callao "Bis," Gold Coast, Guinea Gold Coast, New Callao, West Callao, Tolima B, La Plata, Rio Tinto, Frontino and Bolivia, Potol, Chile, Nouveau Monde, Ruby, Richmond, Victoria.

* * SHARES IN THE ABOVE SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE MONTHS ON DEPOSIT OF TWENTY PER CENT.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

IRON AND COAL SHARES—SPECIAL BUSINESS.—Bilbao, Cardiff and Swansea, Connell, Chillington, Ebbw Vale, Nant-y-Glo, Newport Abercarn, and Pelsall.

SHARES SOLD FOR FORWARD DELIVERY, ONE, TWO, OR THREE MONTHS, ON DEPOSIT OF TWENTY PER CENT.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

ELECTRIC LIGHT SHARES—SPECIAL BUSINESS.—Anglo-American, Hammond, Pilsen-Joel, Brush, Maxim-Weston, Swan.

Shares sold for cash, account, or for forward delivery (one, two, or three months) on deposit of 20 per cent.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

EAST WHEAL ROSE, OLD SHEPHERDS, MOUNTS BAY, TRESAVAN, HOME MINES TRUST.—SPECIAL BUSINESS in the above for cash or account.

FOR SPECIAL SALE, FOR FORWARD DELIVERY, ONE, TWO, OR THREE MONTHS, subject to deposit of TWENTY PER CENT.—100 East Wheal Rose, 12s. 6d.; 100 Mounts Bay, 7s. 6d.; 100 Old Shepherds, 11s.; 100 Tresavan, 10s.; 100 Home Mines Trust, 12s.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MR. W. H. BUMPUS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER,
44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

BUSINESS transacted in STOCK EXCHANGE SECURITIES and MISCELLANEOUS SHARES of every description. RAILWAYS, BANKS, FOREIGN and COLONIAL BONDS. TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS. Accounts opened for the Fortnightly Settlement

A List of Investments free on application.

MR. BUMPUS has SPECIAL BUSINESS in the undermentioned:—
60 Almaden, 11s. 25 Frongoch, 15s.
50 Bratsberg, £2 7s. 6d. 100 Port Phillip, 2s. 6d.
30 Birdseye, 50 Ruby, 29s.
100 Carnarvon Copper, 100 Grogwinlon, 50 Richmond, £2 7s. 6d.
2s. 9d. 100 Kohinoor B, 14s. 6d. 50 Roman Gravel, £6 1/2
50 Carn Camborne, 100 Leadhills, £2 12s. 6d. 50 South Caradon Lim., 16s.
100 Chile Gold, 15s. 6d. 75 La Plata, 19s. 9d. 100 Steintin, 5s. 6d.
150 Chontales, 6s. 9d. 50 New Frongoch Consols, 25 Tresavan, £2 1/2
75 Callao Bis, 15s. 9d. 27s. 6d. 100 Tankerville, 4s.
100 California Gold, 15s. 9d. 25 New Quebrada, 4 11 3 100 United Mexican, 45 18s. 9d.
50 Colombian Gold, 3d. 40 New Kiddy, £2 7s. 3d. 100 Unkerville, 4s.
25 Colorado, 38s. 6d. 100 Nouveau Monde, 9s. 9 15 Van, £5 1/2
50 Copiapu, £3 1/2 50 Orita, 17s. 3d. 150 Wheal Jewell, 1s.
50 Drakeville, 7s. 50 Organo, £1 11s. 3d. 150 Wheal Grenville, 6s. 3d.
100 Devon Friendship, 100 Penrithal, 2s. 50 West Godolphin, 20s.
15 Devon Consols, £2 1/2 100 Potol, 10s. 50 West Polbreen, 23s. 6
100 East Blue Hills, 4s. 6d. 25 Panucillo, £6 1/2 50 West of Wales, 50 West Kitty, £13 1/2
50 East Caradon, 5s. 9d. 50 Pierrefitte, 17s. 9d. 10 Wheal Agar, £15 1/2
50 Emma, 35s. 3d. 50 Prince of Wales, 50 Pen-y-Orsedd, 10s.
20 Frontino, 12s. 75 Pen-y-Orsedd, 10s.

Where prices are not inserted, offers may be made.

SPECIAL BUSINESS at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.

MR. BUMPUS devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others.

WILLIAM HENRY BUMPUS, SWORN BROKER,

OFFICES: 44 THREADNEEDLE STREET, LONDON, E.C.

ESTABLISHED 1867.

BRITISH AND FOREIGN MINING OFFICES.

Messrs. PETER WATSON AND CO.,
12, AUSTIN FRIARS,
OLD BROAD STREET, LONDON, E.C.
BANKERS: THE ALLIANCE BANK (Limited).

Messrs. PETER WATSON AND CO.'S
BRITISH AND FOREIGN MONTHLY MINING NEWS
—STOCK AND SHARE INVESTMENT NOTES—MINES,
MINERALS, AND METAL MARKETS—SHARE LIST.
No. 856, VOL. XVII., for AUGUST month, is now ready, and
will be sent to customers on application.

Annual Subscription..... 5s. | Single Copy..... 6d.

MR. ALFRED E. COOKE,
DEALER IN BRITISH AND FOREIGN STOCKS AND SHARES
OF EVERY DESCRIPTION.
(FROM 76, OLD BROAD STREET)
ESTABLISHED 1853.
9, OLD BROAD STREET, LONDON.

STOCKS AND SHARES FOR SALE.
Mr. ALFRED E. COOKE can SELL the following lots (or any smaller
number of shares) to immediate applicants at prices annexed, free of
commission:—

Where prices are not inserted, the market price of the day will be
taken, or offers may be made:—

15 Bratsberg Cop., £2 4s 60 Mounts Bay, 6s. 9d. 10 South Darren Silver-
30 Callao Bis Gold, 14s 6 10 New Kitty Tin. Lead, 15s.
50 Colombian Hydraulic 30 South Caradon Cop-
Gold, 6s. 30 South Penrithal, 3s. 9d. per m.
25 Carn Camborne Tin & 50 Tankerville Copper &
Copper, 6s. 6s. 30 Tresavan, 9s. 6d.
40 California Gold, 18s. 9 80 Nouveau Monde Gold
100 Chontales Gold, 6s. 3d. 30 Old Shepherds, 11s. 6d.
35 Drakeville Tin and 20 North Blue Hills, 2s 6
Copper, 5s. 20 North Grogwinlon
50 Devon Friend., 4s. 3d Lead, 5s.
50 East Rose Lead, 11s. 6 50 Old Shepherds, 11s. 6d.
50 E. Blue Hills Tin, 6s. 20 Organo, £1 17s. 6d.
50 Eberhardt Sil., 6s. 6d. 20 Orita Gold, 13s. 9d.
10 Frongoch Lead, 20s. 50 Prince of Wales, 9s 9d
20 Goginan Lead, 11s. 3d 50 Potol Gold, 17s. 6d.
20 Grogwinlon Sil., 11s 3 50 Port Phillip Gold,
50 Home Mines Trust, 10s. 6d. 10 Richmond Sil., £13 9
10s. 6d. 10 Ruby, £1 10s.
40 Herodfoot. 15 Roman Gravel Lead,
50 La Plata Lead, 19s. 6d 7s.
10 Leadhills, £2 1/2. 80 Sortridge Copper and
40 Langford Silver, 4s. Tin, 2s.

Many of the above shares can be supplied for settlement by arrangement at
the end of September or October on payment of 20 per cent. deposit. Shares
not found in the above list may be purchased on application.

ALFRED E. COOKE, 9, OLD BROAD STREET, LONDON.

AUGUST 17TH.—The Mail from VICTORIA GOLD MINES is
due on this date, when VERY IMPORTANT ADVICES are expected.

SHARES dealt in for CASH or for FORWARD DELIVERY on receipt of 20 per
cent. deposit.

WEST KITTY DISTRICT.—MR. ALFRED E. COOKE will
shortly have the opportunity of offering to his clients and correspond-
ents shares in a property IMMEDIATELY ADJOINING WEST KITTY,
WHEAL KITTY, and NEW KITTY. Investors who desire to secure an interest
before the shares advance should apply to Mr. COOKE for particulars, which will
be forwarded as soon as possible.

ALFRED E. COOKE, 9, OLD BROAD STREET, LONDON.

PRICES of every description of STOCKS and SHARES are
received continuously throughout the day by TELEGRAPH from the
STOCK EXCHANGE. TELEPHONE NUMBER, 1263.
ALFRED E. COOKE, 9, OLD BROAD STREET, LONDON.
(Opposite the Stock Exchange, with which the offices are in DIRECT
TELEGRAPHIC COMMUNICATION.)

MR. JAMES STOCKER, STOCKBROKER,
2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
BANKERS: LONDON AND WESTMINSTER, Lothbury, E.C.

Messrs. ENDEAN AND CO., STOCK AND SHARE
DEALERS, 45, GRACECHURCH STREET, LONDON, E.C.
ESTABLISHED 1861.
Bankers: London and Westminster, Lothbury, E.C.

JOHN B. REYNOLDS, STOCK AND SHARE DEALER,
37, WALBROOK, LONDON, E.C.
Established Twenty-five Years.
BANKERS: LONDON JOINT-STOCK.

MR. REYNOLDS, at the request of himself, is prepared to advise as to
the Purchase or Sale of Mining Shares on the receipt of a fee of 21s. His regular
correspondents, however, can be advised gratuitously.

MR. REYNOLDS refers to his past recommendations, and lays stress on the
exceptional future evidently in store for certain Mines.

Messrs. PENNINGTON AND CO., SWORN BROKERS AND
SHARE DEALERS, 13, MOORGATE STREET, LONDON, E.C.
BUSINESS in all DESCRIPTIONS of STOCKS, MINING and other SHARES.
ESTABLISHED 1869—BANKERS: ALLIANCE (Limited).

ESTABLISHED 1866. THIRTEEN YEARS IN CORNWALL.

SAMUEL JAMES, STOCK BROKER AND MINING SHARE
DEALER, 14, ANGEL COURT, LONDON, E.C.

Member of the Redruth Mining Exchange.

Those who wish to buy or sell mining shares should consult Mr. JAMES. Mr. J.
devotes his entire attention to home and foreign mines, and places his special
information at the disposal of his clients. That mining offers undoubted advan-
tages for quick returns no one can deny. Look at the enormous sums of money
paid in dividends by home and foreign mines. A large number of wealthy
families owe their present proud positions to adventuring in legitimate mines.
With a better price for metals many of the smaller priced shares would im-
mediately advance some hundreds per cent. Mines inspected and reported upon
by thoroughly competent agents.

SOUTH PENRITHAL is likely to follow West Kitty into the Dividend-
list. Mr. JAMES, therefore, is desirous of dealing in the shares, and will buy or
sell any reasonable number at the advancing prices. To-day's quotations are
40s. to 45s., at which he is ready to do business. Mr. JAMES has information of
the most reliable kind from which he believes that these shares will reach £7
within the next 12 months. The mine is situated in the justly celebrated Gwennap
district. Wheal Buller, to the north, in 13 years gave the fortunate adven-
turers £244,672 in dividends on an outlay of £1280. Tresavan, to the south,
paid the shareholders in 17 years £454,422 on an outlay of £3120. And the United
Mines, to the east, paid dividends amounting to £482,800 on an outlay of £16,000.
The agent hopes to cut into the lode within six weeks from this date.

There are many other mines worth attention, as proceedings of recent share-
holders' meetings prove beyond doubt. During the last 40 years there has no
such opportunity presented itself as the present for investment in British mines.
Metals are certain to advance. In well-informed circles no doubt is entertained
on this point.

See Selected List published by S. JAMES, 14, Angel-court, London, E.C.
COLLACOMBE CONSOLS. This mine, in the Devon Consols district, has just
been restarted on the Cost-book System. Is fully equipped with engines and the
necessary machinery to carry on a successful mine. The deepest level is only
96 fms. from surface, a point at which the great mines of Cornwall and Devon
began to be profitable. The latest report from the agents is most encouraging.
These shares are largely subscribed for by parties living in the neighbourhood of
the mine. A word to the wise, &c.

WANTED, 200 West Gonaena. Sellers to state lowest price for same or any
part.

S. JAMES is a Buyer or Seller of all home and foreign mining shares at close
market prices.

Orders by letter or telegram promptly attended to. Speculative accounts not
opened on any terms whatever. Closing prices of over 150 Home and Foreign
mines issued daily.

IMPERIAL BANK, Lothbury, E.C.

BANKERS: THE ALLIANCE BANK (Limited).

FERDINAND R. KIRK, STOCKBROKER,
5, BIRCHIN LANE, LONDON, E.C.

Fortnightly Accounts opened in all Stock Exchange Securities on receipt of
the usual cover

SPECIAL BUSINESS in the following or any part:—

60 Almaden, 11s. 3d. 40 Frongoch, 20s.
60 Bratsberg, £2 5s. 50 Goginan, 11s.
60 Canadian Cop., 16s. 50 Home Mines Trust,
30 Callao Bis, 15s. 3d. 10s. 100 Port Phillip, 2s. 9d.
100 Consolidated, 2s. 6d. 40 Kapanga, 6s. 6d.
80 Colombian Hyd., 6s 30 Leadhills, £2 5s.
60 Chontales, 6s. 9d. 80 Mounts Bay, 6s. 6d.
80 East Wh. Rose, 11s. 60 Nerbudda Coal, 21s. 75 Wheel Crebor, £2 5s.

BANKERS: LONDON AND WESTMINSTER, Lothbury

THE
"DIFFERENTIAL"
PUMPING ENGINE
(DAVEY'S PATENT),
FOR
DRAINING MINES, WATER SUPPLY OF TOWNS, IRRIGATION,
SUPPLYING DOCKS, PUMPING SEWAGE, AND GENERAL
PUMPING PURPOSES.
HATHORN, DAVEY, AND CO.,
LEEDS.

HATHORN, DAVEY, and Co. have Patterns of "Differential" Engines of all
sizes, from 5 to 500-horse power, and have facilities for supplying very power-
ful Engines and Pumps at a short notice.

MR. CHARLES THOMAS,
MINING AGENT, STOCK AND SHARE DEALER,
3, GREAT ST. HELEN'S, LONDON, E.C.

MR. ALFRED THOMAS,
MINING ENGINEER, AND STOCK AND SHARE DEALER,
10, COLEMAN STREET, LONDON, E.C.

Now ready, post free, One Shilling.
SPARE CASH: WHAT SHALL I DO WITH IT?—A New Work
for the Guidance of Investors.
Published by ALFRED THOMAS, M.E., 10, Coleman-street, London, E.C.
"Invaluable to those who cannot attend the markets."

ESTABLISHED 1852.

MR. HENRY J. TALLENTIRE
begs to draw SPECIAL ATTENTION to the following:—
SOUTH PHOENIX AND CARADON MINE (Limited).—I specially advise
these shares for investment; they are likely to go to a considerable premium.
The company is in 30,000 shares of £1 each; no further liability. The mine is
situated in a district unvalued for its mineral wealth. It lies between and
adjoins South Caradon, which on an outlay of £840 has returned £1,650,000 worth
of ore; and Phoenix United, which has paid over £200,000 in dividends, and is
still making profits.

The mine is at present in full work, and is supplied with an extensive and
valuable plant, machinery, &c., equal to carrying on operations on a con-
siderably larger scale than at present. Thus there will be none of the usual wearisome
delays to try the patience of shareholders. The directorate is first-class; no
promotion money has been or will be paid; the company is likely to be a great
and permanent success.

I shall be pleased to forward Prospectuses, also reports, by such eminent authori-
ties as Capt. JOHN HOLMAN, JAS. KELLY, JOHN TRUSCOTT, RICHARD
GLUYAS, &c.; and to SECURE SHARES FOR MY CLIENTS. Taking the
company altogether, it presents an exceptionally favourable opportunity for
making money, and I strongly recommend an immediate application for shares.

OFFICES—21, THREADNEEDLE STREET, LONDON, E.C.
BANKERS: CITY BANK, Threadneedle-street.

JOHN L. ENN AND CO.'S
AUGUST CIRCULAR.
Containing latest information and Stock Exchange prices of all Leading
Securities.

Address—5, GROCERS' HALL COURT, LONDON, E.C.
GRANVILLE SHARP, STOCK AND SHARE DEALER,
32, QUEEN VICTORIA STREET, LONDON, E.C.
BANKERS: LONDON AND WESTMINSTER, Lothbury, E.C.

MR. J. GRANT MACLEAN,
SHAREBROKER AND IRONBROKER, STIRLING, N.B.
Refers to his Share Market Report on page 918 of to-day's Journal.

MR. E. J. BARTLETT, STOCK AND SHARE DEALER,
30, GREAT ST. HELENS, LONDON, E.C.
Selected List of Investments post free on application.

MR. ALEXANDER DAVIDSON,
STOCK AND SHARE DEALER,
LEADENHALL HOUSE, 101, LEADENHALL STREET, LONDON, E.C.

HOODE AND CO., STOCK AND SHARE DEALERS,
563 and 564, MANSION HOUSE CHAMBERS, 11, QUEEN VICTORIA
STREET, E.C.

JOHN RISLEY, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER,
38, CORNHILL, LONDON, E.C.
ESTABLISHED 1860.

BANKERS: LONDON AND WESTMINSTER, Lothbury, E.C.
J. R. is in a position to BUY or SELL shares in West Caradon and New Caradon
Mines free of commission. Prices given on application personally, by letter, or
by telegraph.

ABBOTT, PAGE, NEIL, AND CO.,
STOCKBROKERS,
42, POULTRY, LONDON, E.C.

Resumé of Stock Exchange business issued every Monday.
AUGUST CIRCULAR NOW READY.
Both sent post free on application.

MR. W. BAWDEN SKEWIS, MINING AGENT, STOCK AND
MINING SHARE DEALER,
2, ST. PETER'S ALLEY, CORNHILL, LONDON, E.C.

A reliable Price List issued every evening at Five o'clock, which can be had
free on application.

Mines Inspected at Home and Abroad on moderate terms.

MR. SKEWIS having had great and practical experience in Cornish Mining is,
therefore, in a position to give trustworthy information.
Wheal Crebor, Bedford United, West Crebor, Prince of Wales, and Collacombe
Consols are all promising mines.

HORACE J. TAYLOR, 38, GREAT ST. HELENS,
LONDON, E.C., STOCK AND MINING SHARE DEALER.

Offers FOR SALE the undermentioned, all or part, at annexed prices:—
100 Bwlch United. 50 Home Mines Trust, 100 Port Phillip, 3s.
20 Colorado. 11s. 6d. 50 Ruby, £1 11s.
100 Californian Gold, 12s 50 La Plata, £1. 100 Sortridge, 2s 1/2
50 Callao Bis, 15s. 9d. 50 Mona Consols. 40 S. Devon Utd., 4s. 6d.
125 Colombian Gold, 6s. 50 Mounts Bay, 6s. 6d. 40 Tankerville, 4s. 6d.
100 Chontales, 6s. 3d. 50 Nouveau Monde, 9s. 9 15 Tolima A.
100 Devon Friend., 4s. 3d 50 New W. Caradon, 6s 6 20 do., B.
50 East Blue Hills, 6s. 50 Old Shepherds, 11s. 3d 100 Victoria (Gold), 14s. 3
50 East Rose, 12s. 3d. 30 Organo, 10s. 100 West Lisburne.
10 Eberhardt, 5s. 100 Parys Copper, 3s. 150 West Devon Con., 3s 3
25 Emma, £2. 50 Potol, 10s. 100 West Crebor, 6s. 6d.
100 Flagstaff, 5s. 100 Prince of Wales, 9s. 9d. 50 Wheal Crebor, £2 1/2.
75 Herodfoot, 4s. 6. c.p. 100 Fully paid shares FOR SALE at 10 s. per
share. BANKERS: CENTRAL BANK OF LONDON (LIMITED).

THE COAL TRADE.

Mr. J. R. Scott, the Registrar of the London Coal Market, has published the following statistics of imports and exports of coals into and from the port and district of London, by sea, railway, and canal, during July, 1883:—

IMPORTS.			EXPORTS.		
By Sea.	Ships.	Tons.	By Railway and Canal.	Tons.	cwt.
Newcastle	132	128,501	London & N. Western	130,600	4
Sunderland	90	66,144	Great Northern	100,676	0
Seaham	25	15,757	Great Western	106,679	0
Hartlepool	52	22,685	Midland	186,620	0
Middlesbrough	3	482	Great Eastern	65,282	8
Scotch	8	3,195	South-Western	5,767	0
Welsh	31	28,003	South-Eastern	1,589	19
Yorkshire	20	3,791	Grand Junction Canal	543	10
Cumberland	1	193			
Small coal & cind.	7	3,227			
Colonial	2	103			
Total	371	269,181	Total	597,857	19
Imports—1882	392	277,754	Imports—1882	535,130	9

Comparative Statement, 1882 and 1883.

By Sea.	Ships.	Tons.	By Railway and Canal.	Tons.	cwt.
Jan. 1 to July 31, 1883	281	2,201,530	Jan. 1 to July 31, 1883	3,917,722	19
Jan. 1 to July 31, 1882	292	2,123,127	Jan. 1 to July 31, 1882	3,563,054	7
Increase—1883		78,403	Increase—1883		354,668
Decrease—1883	11	72,313	Decrease—1883		354,668

EXPORTS.

Railway-borne coal passing "in transitu" through district	Tons	99,784
Sea-borne coal exported to British Possessions, or to foreign parts, or to the coast		74,759
Ditto sent beyond limits by railway		21,789
Ditto by canal and inland navigation		1,040
Railway-borne coal exported to British Possessions, or to foreign parts, or to the coast		44,714
Ditto by rail beyond district		21
Ditto by canal and inland navigation		54
Sea-borne coal brought into port, & exported in same ships		378
Total quantity of coal conveyed beyond limits of coal duty district during July, 1883		242,549
Ditto, during July, 1882		206,169

Comparative Statement, 1882 and 1883.

Total distribution of coal from Jan. 1 to July 31, 1883	1,635,887
Total distribution of coal from Jan. 1 to July 31, 1882	1,556,581
Increase in the present year	79,306

General Statement, 1882 and 1883.

Increase in coals imported by sea during the present year	78,403
Increase in coals imported by railway and canal	354,668
Less increase in coals exported	79,306
Total increase in trade within the London district during present year	353,645

UTILISATION OF PEAT MOSS.

An invention, the object of which is to render available as a raw material for the manufacture of paper pulp, millboard, furniture, doors, window sashes, and so on the mosses or lichens so plentiful in Nature, and especially white lichens, not, however, the peat moss, but as such peat moss as has in course of time lost vitality or growth, and serves as a foundation for the new moss, and accumulating through ages to a great depth—that is, sometimes 36 ft. deep and more, has been patented by TALLAHOF'S PAPPERSBRUKS AKTIEBOLAG, of Jönköping. In order from this material to make millboard the peat moss is first rinsed to free it from the adhering sand and earth; it is then boiled for about an hour under a pressure of about four atmospheres in a suitable boiling apparatus with about 1 per cent. of soda of the peat when dry, the soda being dissolved in water, so as to completely cover the material. The liquid is then drawn off, and the material placed in a large vessel, wherein it is slaked or stirred with water, so that any remaining sand and earth may separate and deposit on the bottom, and the material easily be separated therefrom, also for removing the last trace of the soda lye. The material is then deprived of so much of its water that it may assume a suitable condition for undergoing a refining treatment, with a view of cutting up any remaining roots which may not have become detached during the boiling process.

The material is next run into two sorting cylinders, which are provided with finer or coarser cloth, according to the material or object to be manufactured. The material is removed from the aforesaid vessel by means of an endless chain or bucket pump and into an agitating vessel. After the material has been treated in this manner it is ready to be used for paper or millboard, which is done in the usual large machines for such purpose. It is obvious that the time for boiling and the quantity of soda must be modified according to the kind of peat moss used, and the article which it is desired to make therefrom. Millboard made from the material thus treated will withstand the fire quite as well as any heretofore made. This and other good qualities of such millboard render it very suitable for roofing material and for lining the interior of walls and roofs. If the material is to be bleached, in order to be used for writing and drawing paper and the like, this is effected by any known method—for instance, by chloride of lime and sulphuric acid, and other substances which are suitable for bleaching.

To render the material suitable for building purposes, such as doors and for furniture, mouldings, ornamental or otherwise, and for imitation sculpture and the like, the moss is first rinsed in a large vessel, the bottom of which consists of coarse cloth, and in which water is poured over it till the moss is quite cleaned. The moss is removed herefrom to another adjoining vessel, and about 3 per cent. of a glue is added, consisting of resin and soda, and water is mixed with it till it assumes a suitable consistency for being worked by rollers till the moss in a fibrous condition becomes applicable as pulp for paper. The material is then put on two sorting cylinders provided with coarser or finer cloth, all according to the product which it is desired to produce. The mass is now mixed with about 20 per cent. of pipe-clay and innocuous colouring materials, the latter according to the colour desired to produce, the whole being intimately mixed in a mixing vessel, after which the mass is conveyed to a usual millboard making machine, where it is treated as usual in millboard manufacturing, only with that difference, that the cylinders or rollers must be so adjusted in size that the length and breadth desired is produced. Then as many pieces of millboard thus formed are placed upon each other as required for the thickness desired, and before they are dried are placed in a strong hydraulic press, wherein they are so compressed that they, after drying, become at least as hard as wood. By laying the compressed piece of millboard in suitable cast-iron dies, the mass can be given the form and appearance desired.

It is not necessary that the mass should first be made into millboard before being pressed into any desired form, but it may also be directly moulded and pressed into the desired form. The surface may be polished, painted, varnished, or otherwise treated. Artificial wood made in this manner has the advantage that it does not swell or crack, and that it is almost incombustible, therefore, it is not only generally applicable as a suitable and strong building material, but even a cheap building material.

SOMERBROSTON IRON ORE COMPANY.—The report of the directors, to be presented to the annual meeting in Manchester on Aug. 16, says that after payment of all expenses there remains a net profit for the year of 18,904l. 8s. 7d. To this has to be added the balance from last year, 16,667l. 7s. 2d., making together 20,570l. 10s. 9d. From this has to be deducted the amount of the interim dividend of 5 per cent. per annum, 37,500l., leaving for distribution the sum of 16,820l. 10s. 9d. This sum the directors recommend shall be appropriated as follows: To payment of a dividend of 20 per cent. per annum free of income tax, which, with the interim dividend, will make the dividend for the year 25 per cent., 15,000l., carrying forward to next account 1820l. 10s. 9d.

HOLLOWAY'S OINTMENT AND PILLS—NOTABLE FACTS.—Summer heats augment the annoyances of skin disease and encourage the development of febrile disorders, whereby they should, as they may, be removed by these detergent and purifying preparations. In stomach complaints, liver affections, pains and spasms of the bowels, Holloway's unguent well rubbed over the affected part immediately gives the greatest ease, prevents congestion and inflammation, checks the threatening diarrhoea, and averts incipient cholera. The poorer inhabitants of large cities will find these remedies to be their best friend when any pestilence rages, or when from unknown causes eruptions, boils, abscesses, or ulcerations between the presence of taints or impurities within the system, and call for instant and effective curative medicine.

CARN CAMBORNE

TIN AND COPPER MINING

COMPANY (LIMITED).

Important and valuable discovery of a gigantic lode in the 40 fathom level, which is over 11 ft. wide, producing rich copper ore, and increasing in yield as it is being driven upon.

Indications are extremely favourable for meeting with a rich deposit of tin and copper ore going west.

The tinstone now being broken from this lode assays 56 lbs. of tin per ton—much higher than the average produce of Dolcoath.

SEE REPORT FROM THE MINE IN THIS WEEK'S JOURNAL.

Carn Camborne adjoins Dolcoath, which has yielded over £2,000,000 in dividends to its shareholders.

Dolcoath's riches commenced at about the depth of Carn Camborne's 105 fathom level.

This is now being driven through granite to cut Dolcoath's south lode, which is worth about 3 tons of copper ore per fathom in the 95 fathom level.

The intersection of this lode at the 105 will soon be accomplished, which will in all probability establish the success of the mine.

Carn Camborne shares will go to £10 each if the lode cuts rich at the 105, as it was at about this depth Dolcoath first proved rich.

Shareholders in Carn Camborne should double their holdings if they can get shares for anything like advertised prices.

Paying only on receipt of transfer duly certified.

We hold largely in Carn Camborne, and are not disposed to sell a share in view of the discoveries shortly expected.

Holders should not be induced to part with their shares for less than £2 each, and if they have a little more patience they will get that price.

ENDEAN AND CO.,

STOCK AND SHARE DEALERS,

85, GRACECHURCH STREET,

LONDON, E.C.

ESTABLISHED 1861.

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. S. J. DAVEY, mine share-dealer, Redruth (Aug. 9), writes:—Our market has not been any better this week, very little has been done, and prices on the whole have been rather easier. Smelters have reduced tin standards 2s. Subjoined are the closing quotations:—Blue Hills, ¼ to ¾; Carn Brea, 6 to 8½; Cook's Kitchen, 27 to 28; Dolcoath, 64 to 65; East Pool, 42½ to 43½; East Tavy, ¼ to ¾; Killifreth, 2½ to 2¾; New Cook's Kitchen, 5 to 5½; New Kitty, 2 to 2½; Phoenix, 2 to 2½; Pedn-an-drea, ¼ to 1; South Condurrow, 8 to 8½; South Crofty, 7 to 7½; South Tolverne, 4½ to 5; South Frances, 9 to 9½; Tincroft, 7 to 7½; West Basset, 5 to 5½; West Frances, 2 to 3; West Kitty, 13 to 13½; West Peavor, 3 to 3½; West Polbreen, 1 to 1½; West Poldice, 1 to 1½; West Tolgus, 10 to 12; West Seton, 12 to 14; Wheal Agar, 15 to 15½; Wheal Basset, 4½ to 5; Wheal Grenville, 6 to 6½; Wheal Peavor, 3½ to 3¾; Wheal Kitty, ¼ to 1; Wheal Uny, 3 to 3½; Wheal Coates, ¼ to ½; Trevaunance, 2½ to 2¾; South Penstruthal, 1¼ to 1½.

—Messrs. ABBOTT and WICKETT, stock and share brokers, Redruth (Aug. 9), write:—Transactions have been very restricted this week, and owing to the weakness of the tin market most shares are easier. There is but little disposition to buy or sell at present. Closing quotations herewith:—Blue Hills, ¼ to ¾; Camborne Vean, ¼ to ¾; Carn Brea, 6½ to 7; Cook's Kitchen, 28 to 29; Dolcoath, 64½ to 65; East Pool, 42½ to 43; Killifreth, 2½ to 2¾; New Cook's Kitchen, 5 to 5½; New Kitty, 1½ to 2; Pedn-an-drea, ¼ to 1; South Condurrow, 8 to 8½; South Crofty, 7 to 7½; South Tolverne, 4½ to 5; South Frances, 9 to 9½; Tincroft, 7 to 7½; West Basset, 5 to 5½; West Kitty, 13½ to 13¾; West Peavor, 3 to 4; West Frances, 3 to 3½; West Tolgus, 10 to 12; West Seton, 15 to 15½; Wheal Agar, 15 to 15½; Wheal Basset, 5 to 5½; Wheal Grenville, 6 to 6½; Wheal Kitty (St. Agnes), 1 to 1½; Wheal Peavor, 3½ to 3¾; Wheal Uny, 3 to 3½.

—Mr. J. M. W. BAWDEN, Liskeard (Aug. 9), writes:—The mining market is dull and inactive, sellers predominant; the unexpected reduction of 2l. per ton on the standards by the smelters has had a depressing influence on all tin stock and prices generally are weaker. Subjoined are closing quotations:—Bedford United, 1¼ to 1½; Carn Brea, 6½ to 7; Cook's Kitchen, 28 to 28½; Dolcoath, 64½ to 65; Devon Consols, 3 to 3½; Devon Great United, 1s. to 1s. 6d.; East Caradon, ¼ to ¾; East Looe, ¼ to ¾; East Pool, 42½ to 43; Gawton United, 1s. to 1s. 6d.; Glasgow Caradon, ¼ to ¾; Gunnislake (Clitters), 1½ to 1¾; Herodfoot, ¼ to ¾; c. p. d.; Hingston Down, ¼ to ¾; Killifreth, 2½ to 2¾; Marke Valley, ¼ to 1; New West Caradon, ¼ to ¾; North Herodfoot, ¼ to ¾; Old Gunnislake, ¼ to ¾; Phoenix United, 2¼ to 2½; Prince of Wales, ¼ to ¾; South Caradon (Limited), 1¼ to 1½; South Condurrow 8 to 8½, x. d.; South Crofty, 7 to 8; South Devon United, ¼ to ¾; South Frances, 9 to 9½; Tincroft, 6½ to 7; West Basset, 5½ to 5¾; West Caradon, ¼ to ¾; West Kitty, 12½ to 13; West Mary Ann, ¼ to ¾; West Phoenix, ¼ to ¾; West Peavor, 3 to 3½; Wheal Agar, 15 to 15½; Wheal Basset, 5 to 5½; Wheal Grenville, 6 to 6½; Wheal Kitty, 1 to 1½; Wheal Peavor, 3½ to 3¾; Wheal Uny, 3 to 3½.

—Mr. JOHN CARTER, mine share-dealer, Camborne (Aug. 9), writes:—The share market has been very dull during the week, and prices are again lower. Subjoined are the quotations:—Carn Brea, 6½ to 7; Cook's Kitchen, 27 to 28; Dolcoath, 64 to 65; East Pool, 42½ to 43; Killifreth, 2½ to 2¾; Melanear, 3 to 3½; New Cook's Kitchen, 4½ to 5; New Kitty, 2 to 2½; Pedn-an-drea, ¼ to ¾; Penhalls, ¼ to ¾; South Condurrow, 7½ to 8½; South Crofty, 6½ to 7½; South Frances, 9 to 9½; Tincroft, 7 to 7½; West Basset, 5½ to 5¾; West Frances, 2½ to 3; West Kitty, 13½ to 13¾; West Peavor, 3 to 3½; West Poldice, ¼ to 1; West Seton 12 to 14; Wheal Agar, 15 to 15½; Wheal Basset, 5 to 5½; Wheal Grenville, 6½ to 6¾; Wheal Kitty, 1 to 1½; Wheal Peavor, 3½ to 3¾; Wheal Uny, 2½ to 3.

MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, share-brokers, Queen's Chambers, Market-street (Aug. 9) write:—The continuance of a state of affairs characterised by such a want of life renders it almost superfluous to attempt to report on a market so devoid of features of interest. Certainly some movements are always occurring, but for some time they have not been the outcome of any general influence, but to the effect of rumours and operations, about which nothing can be reported except the bare changes. In the dull condition of the market, the Bank Holiday, besides the actual loss of the day's business, has restricted business by taking away operators both before, and keeping them away after the day, and as the settlement commences on Monday, the new business entered upon during the past week is small indeed. What has been done is pretty well divided amongst the several classes of investments. Taking into consideration that so little is going on, prices generally keep very steady. Foreign funds on the whole are the turn better on the week. Egyptian stocks have shown some better prices, but have since receded, only the Daria now showing any, and that but slight improvement. Spanish Three per Cents. have had a sharp fall, the greater part of which has occurred to-day. Mexican Rails, after going up quickly, have settled back somewhat, but are now stronger again, notwithstanding a decrease in traffic of 12 ½.

BANKS, with a fair proportion of the business passing, are somewhat irregular, balance of movement being slightly adverse.—Higher: National Provincial, ½; ditto, new, 1; and Parrs, ½.—Lower: Manchester and Salford, ½; Manchester and Liverpool District, ½; and Manchester Joint-Stock, ½. Union of Manchester, sellers' quotation, ¾ down.

INSURANCE.—Very few transactions recorded.—Higher: National Boiler, ¾ to ¾; Royal (Liverpool), ¾; and English and Scottish Boiler, 1s.—Lower: Commercial Union, ¾; British Re-Insurance, ¾; and Manchester Fire, ¼. Lancashire and Yorkshire Accidents, buyers' figure advanced ½.

COAL, IRON, &c. AND MISCELLANEOUS.—A few transactions reported in Palmer's, B. Cammells, and Fellis; beyond these, nothing doing. Bolckows quotations are contradictory, as also are the movements in Palmer's Shipbuilding. Ebbw Vale, nothing doing, and prices stationary.—Higher: Ashbury Railway Carriage and Iron, 2; Parkgate Iron, ¼ to ½; and Bolckows (12½ paid), ¾.—Lower: United States Rolling Stock, ¾; Bolckows (fully-paid), ¾ to ¾; and Cammells ½, the last named being at one time ¾ lower.

COTTON SPINNING, &c. are featureless, with only a small business passing.—TELEGRAPHIC without change, except in Anglos, all issues of which are rather better, the Ordinary ¼; ditto Deferred, ¾; and ditto Preference, ¾.—LITTLE PHONES unworked, excepting Lancashire and Cheshire, which are rather better.—CANALS: Ashton and Oldham have risen ½, and Peak Forest 1; and some little business has been done in both named.—CORPORATION STOCKS quiet, but steady.—MISCELLANEOUS, beyond a fall in Manchester Carriage and Trams, B. and Bodegas, and a slight improvement in Westheads, there is nothing to report here.

RAILWAYS.—The prominent feature is the paucity of business, the broken weather of Monday and since not inducing any strength. Traffic, however, have come out very good this week, causing a demand for London and Great Western, and to-day Brighton, A. and Great Northern, A. have risen. The hopeful speech at the Lancashire and Yorkshire meeting yesterday has put some new life into this sadly depreciated stock. In others there is no appreciable change. The traffic return of the Grand Trunk of Canada, totalling 6679½, increase, helped their descriptions, and the tone is firmer. Americans attract no attention, the failures in America assisting to depreciate values.

NEWCASTLE-ON-TYNE STOCK EXCHANGE.—Mr. FARADAY SPENCE, stock and share broker, Grey-street (Aug. 9), writes:—Business still dull; Barrow Hematite Steel, ordinary shares, 10 to 10½, and 6 per cent. preference, 10½ to 10¾. Bede Metal and Chemical shares 17 to 18. Consett Iron shares 24½ to 24¾. Consett Spanish Ore shares are in demand at 52s. Darlington Iron and Steel shares are quite a drag in the market at 1¼ to 1½; the 7 per cent. cumulative preference are offered at par. Earle's Shipbuilding shares are wanted at 21¾. John Abbot and Co.'s shares have further improved to 49 to 50. Palmer's Shipbuilding and Iron Co.'s A shares are 26½ to 27, and B, 18½ to 19. Sir W. G. Armstrong, Mitchell and Co.'s shares are wanted at 119. Skerrie Iron shares are nominally ¾ to ¾. Tees Side Iron and Engine Works ordinary shares are 1 to 1½, and the preference 1½ to 1½. Tyne Boiler Works shares are 8 to 9. Tyne Forge shares are 10½ to 11. West Cumberland Iron and Steel shares are 10 to 10½. Cashwell Lead Mine shares are 30s. to 35s. Green Hurth Mine, despite the excellent reports from this mine, the shares remain dull at 6½ to 6¾. Healeyfield Mine shares are 7s. to 7s. 6d. Hexham and Edmondbyers Mine shares are 7s. 6d. to 20s. North Green Hurth 1½ paid shares are ¾ to 1, and 6s. 6d. paid shares, 6s. 6d. to 6s. 9d. Patteryske Mine shares are 10s. to 12s. 6d. Tharls Sulphur and Copper shares are 6½.

Mr. S. H. CHALLONER, stock and share broker, Grey-street (Aug. 9) writes: Local share markets are dull, and little doing. Consett Iron are without change at 24½ to 24¾, the report having no effect upon them. Palmer's shares are a shade better, and are expected to improve, it being understood the report will be a good one; B shares, 18½ to 19; A, 26½ to 27. Consett Spanish Ore in demand at 52s. 6d., and Langdale at 3½, and no sellers. Sir William G. Armstrong, Mitchell, are 119 to 120; Tees Side Iron, preferred, 1½ to 1½; West Cumberland Iron, 10 to 10½; Swan's Lights, 2 to 2½; Law's, 8½ to 9½, and 10½ bid for preference. Bede Metal shares flat at 17, sellers (23½ paid). Scotswood Newburn Railway shares 7½ to 7¾. [An interesting table of dividends in Consett Iron Company will be found in another column.]

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, stockbroker and ironbroker (Aug. 6), writes:—Since our last report (July 26), markets have been inactive, owing to the holidays. Prices, however, are steady, owing to the easy state of the Money Market, and the hope that the harvest may turn out well and lead to brisker business in the autumn. In shares of coal, iron, and steel companies there has been more business doing. Clyde Coal have advanced to 67½, owing to the improvement in the coal trade; Shott's Iron also higher. Steel Company of Scotland advanced to 11½, owing to the favourable dividend rumours (11 per cent. against 7 per cent. last year) but are now higher at 10½ to 10¾. Cardiff and Swansea are unaltered at 45s. to 55s., as although they made a profit last year, they have still a debit balance of 35,000l. The principal business has been in Marbellas, which declined from 8½ to 5½, on a communication from the directors intimating that the lessors have declined to renew the lease, and that another company has been started to take it up. It is not, however, expected this new company will be able to go on. The Marbellas have freehold properties which they hope may render them independent should the lessors continue to refuse a renewal. There have been no special features either in the iron trade or in the warrant market to direct attention to iron shares. Chapel House (Preferences) offered. In shares of foreign copper and lead concerns there has been some recovery from the lowest prices in Mason and Barrys and Rio Tinto. Tharls touched

6%, but are now firmer at 61. 9s. to 61. 10s. A favourable impression has been caused by the announcement of quarterly dividends by the Panunello Company. Arizona touched 50s. 6d., and are now about 50s. 6d.; Senteles, 5s. to 7s.; and York Peninsula (pref.), 15s. to 17s.

In shares of home mines business is still quiet. If the tin market improves as expected some of the cheap tin shares should be worth buying. Rickton offered: Carpellas at 1s. 6d.; Cambrian, 5s.; Carn Camborne, 10s. to 15s.; Caron, 2s. 6d. to 5s.; East Hony, 9s.; East Blue Hills, 5s. 6d.; Frongochs, 10s. to 12s. 6d.; Langfords, 4s. to 6s.; Leadhills, 47s. 6d. to 52s. 6d.; Mounts Bays, 5s. to 7s.; Monkton Manganese, 30s. to 40s.; New Caradon, 4s. to 5s.; Old Shepherds, 6s. 3d. to 8s. 9d.; Rhosmor, 50s. to 60s.; Rovalton, 1s. 6d.; Tamar, 6s. 3d. to 8s. 9d.; Trevaunance, 42s. 6d. to 47s. 6d.; Trebartha Lemanne, 6s. 6d.; Wheel Lusk, 2s. 6d.; and Yatwith, 1s. to 3s.

In shares of gold and silver mines business continues quiet. Californians are unaltered, although another dividend has been announced. Cankim Bamco, 2s. 6d. to 5s.; Devala Central, 1s. to 3s.; Denver Gold, 2s. 6d. to 5s.; Flagstaff, 2s. 6d. to 5s.; Frontino, 32s. 6d. to 35s.; Gold of Canada Debentures, 17s. 6d.; Gold Coast, 11s. 3d. to 13s. 9d.; Hawkins Hill, 4s. 6d.; Indian Kingston, 1s. 6d.; Kolinor, 1s. 6d.; Isabelle, 5s. to 10s.; Nava de Jadraque, 2s. 6d.; New Callao, 5s. to 10s.; New Gold Run, 4s. 3d.; Potosi, 17s. to 18s.; Sierra Butte, 22s. 6d. to 27s. 6d.; Tacuahu, 4s. 6d.; West African, 13s. 9d. to 16s. 3d.; and West Callao, 12s. 6d. to 15s.

In shares of oil and miscellaneous companies prices are steady. Mid-Lothian Oil advanced from 107. 13s. 9d. to 111. 1s. 3d. Home Mines Trust, 10s. to 12s. 6d.; and Lawes' Chemicals, 6 to 6 1/2.

EDINBURGH.—Messrs. THOS. MILLER and SONS, stock and share brokers, Princes-street (Aug. 8), write:—Business has since last report been extremely dull in all departments. The railway dividends announced have had no effect on the general market, and there is no change of importance to note in home or Canadian railways. Americans have been very weak, and have fallen heavily. Erie shares have gone from 35 1/16 to 34 1/2. Denver from 39 to 36 1/2. Ontario from 25 to 23 1/2. Mississippi from 35 1/2 to 34. Oregon Preference have declined from 39 1/2 to 38 1/2. Reading shares have maintained previous prices. Union Bank shares have improved from 24 to 24 1/2. Edinburgh Life Insurance from 38 1/16 to 39. Caledonian from 17 1/2 to 17 3/4. Canada North West Land shares have been flat, and have receded from 61s. 5d. to 55s. American Lumber have gone from 7 1/2 to 7 1/4. Prairie Cattle (first issue) from 9 1/16 to 9 1/2. Swan Land and Cattle from 7 1/2 to 6 1/2. Arizona Copper have risen 2s. to 52s., at which they are firm, and a fair amount of business has been done in them. Arneston Coal are wanted at 10 1/2—a rise of 2s. 6d. Marbella Iron Ore have had another heavy fall, from 70s. to 60s. The changes in oil shares are slight, but are generally upward.

IRISH MINING AND MISCELLANEOUS COMPANIES SHARE MARKET.

CORK.—Messrs. J. H. CARROLL and SONS, stock and share brokers, South Mall (Aug. 8), write:—Markets were quiet to-day, and Great Southern fell to 121. Midlands unchanged, but Bandons were firm at 86. Macrooms were asked for at 6, and the preference at 8. National Banks were done at 24 1/2 to 24 3/4, and Munsters at 6 1/2. No change in Provincials or Hibernians. Alliance Gas were 19 1/2, and Dublin 9 1/2. Cork Steam Packets remain 12 to 12 1/2, and Daly Tram were offered at 24. Lyons shares ex div. Breweries were offered at 5, and Gresham Hotels asked for at 3 1/2. Gouldings remain 9, and Levys 5 1/2 to 6. Harbour Board debentures asked for at 100 1/2.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS, MINEOWNERS STOCK AND SHARE DEALERS & 1 ST MICHAEL'S ALLEY, CORNHILL, LONDON

We agree with our correspondent; it is a great pity that such a mine as Wheal Agar, if all reports be true, should have such an incubus upon it as a debt of 72977. 1s. 6d. without a call being made to wipe it off. Among the shareholders, we believe, are some of the wealthiest bankers and merchants in Cornwall; but all who know anything of Cornish mining know also what is meant by merchants allowing 68387. 1s. to remain so long unpaid. The shareholders are not only paying stiff interest but stiff prices; whereas short and regular payments would get goods at less prices, and discounts besides. We have found this the case at Wheal Crebor, where all the merchants are paid monthly. And, looking at the magnitude of Wheal Agar, and the large debt also due to the bankers, we do not doubt that 1000l. a-year might be saved to the shareholders by prompt and regular payments, and being independent of the bankers. We can only suppose, therefore, from the fact of the managing agent recommending that there should be no call, as the mine was capable of paying off the debt, that shareholders are getting tired of the calls; and, further, that he hopes to do better in the future than he has done in the past. And it must have been a great satisfaction, considering what has happened in the past, to hear him also say that the pitwork in the bottom of the mine was now able to cope with any influx of water during the coming winter.

A shareholder in Langford tells us we have not made enough of the acquisition of the East Cornwall silver sett; that it is good enough to form an amalgamated company upon if the shareholders do not come forward and take up the preference shares as silver might soon be found.

West Crebor adjoins Crebor, is on the same lode, and is nearing the same depth from which Crebor raised and sold ore to the value of 150,000l. There is only one lode in the district having a north underlie, and that is the Crebor lode, which has actually been driven from Crebor into West Crebor sett. There can, therefore, be no doubt about the lode; and it has all the same composition and the indications and promise that it has in Crebor. Being in higher ground, however, the 62 in West Crebor is only equal to the adit in Crebor. Down to the 62 there were several short shoots of ore, worth 10l. and 12l. per fathom. The shaft is now down 72 1/2 fms., lode 3 1/2 ft. wide, in easy ground, and at the 75 a level will be driven, it is hoped, in a course of ore. At the 62 west the lode has not been seen for some few fathoms, but will be cut through shortly. In this end the lode was once worth 15l. per fathom for 3 or 4 fms. in length.

With all these prospects our correspondent may well further ask why are shares at 5s. each? That we cannot answer, and do not much regard, as we go for the mine and not for the market. We hold nearly 1000 shares, that have cost us on an average 15s. 8d. each. The agent holds 1000, which, with the calls, must have cost nearly as much, and we are content to wait for the mine to recoup us, as Wheal Crebor did, and we advise our correspondent to do the same and not regard the market, which is no test of the value of a speculation. When Wheal Crebor were down to 2s. 6d. per share no one would touch them, and the mine would have been stopped and the company wound-up if we had not purchased 3000 shares at 1s. 6d. each. Within six months what we had expected came to pass, and shares rose to 13l. each. We have as much confidence now in West Crebor turning out a successful mine as we had in Crebor then, though we fear many people have been frightened out of their shares. Capt. John Andrews, the agent, would answer any question a shareholder might ask him.

Great West Chiverton has been specially inspected and reported upon this week for a large shareholder. The report was sent to us too late for insertion this week, but will be sent to the Mining Journal for next week's issue. The report concludes thus:—"A better spot for a new mine could scarcely be selected. The lode is one of the rich lodes of the Chiverton Mines, and appears to be in the same lead-bearing formation, and I never saw a young mine where success appears more certain."

The mine is on the run of the lodes of the famous West Chiverton, and we have always considered the lode worked on to be one of the lodes of that mine.

The New Caradon has also been inspected, and the special report will be found in another column. Looking at all the facts connected with the mine, the inspector says—"There is only one just conclusion that can be arrived at—that this mine will, on being vigorously worked be another of the grand successes for which the district is celebrated."

There are two very old sayings in Cornwall, one is—"Where 'tis, there 'tis;" the other—"Mundic rides a good horse," and as it is proverbial that when large deposits of mundic are found, there is ore beneath, or near at hand, let us hope we are near something good at Polrose, for the agent writes this week: "The lode (in the shaft) is improving as we sink. I have never seen it look more promising than it does at present. It is still producing large quantities of mundic, and some parts of it are yielding good work for tin."

The country about the shaft is highly mineralised, and I fully expect that we shall shortly have a much improved lode, for I cannot but think that the quantity of mundic we are meeting with must proceed from a deposit of tin not far distant."

Meetings of Public Companies.

ENGLISH AND AUSTRALIAN COPPER COMPANY.

The half-yearly general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Thursday.

Mr. R. A. ROUTH (the Chairman of the company) presiding. Mr. C. B. ROGERS (the secretary) read the notice convening the meeting.

The CHAIRMAN: Gentlemen, you are aware this is the half-yearly meeting, and on this occasion we have really no business to transact, and I have merely to report to you what we have been doing during the past six months. I only wish that the result had been more satisfactory than it appears to be; although I think in my own mind it is satisfactory in this way, that we have certainly not made a loss; but the profit is a minimum one. When we had the pleasure of meeting in February last copper was considerably higher than it is now, and it does not require any great amount of calculation to show you that the fall in the price of copper must naturally affect our stocks. This is more especially the case in the first half of the year, because it not only affects us with regard to the copper we have sold, but also with regard to the copper we have in hand. We always carefully review our valuations, and on this occasion we have had to put down our copper stocks so as to meet the fall which has taken place in the price of copper. Therefore, looking at the year as a whole, you will find that this half-year affords more severely than the next half-year will, because we have already written off the depreciation in the value of the copper. If by any possibility there is a rise in copper between now and February, which I think is very probable, we shall reap the full advantage of having put our stock back. With regard to the business done during the half-year the quantity of ore received from the different mines has been 3439 tons 13 cwt. 2 qrs., as against 5083 tons 5 cwt. 2 qrs. in the corresponding six months. The quantity of ore smelted at Port Adelaide and Newcastle Works was 3976 tons 11 cwt. 2 qrs., as against 3541 tons 20 cwt. The quantity of copper made was 713 tons 2 cwt. 2 qrs. 4 lbs., as against 583 tons 11 cwt. 1 qr. 13 lbs., and the quantity of copper shipped and sold in Australia was 713 tons 11 cwt. 13 lbs., as against 589 tons 6 cwt. 2 qrs. 14 lbs. The net earnings of the wharf at Port Adelaide were 13407. 10s. per ton, and since then it has fallen down to 63s. per ton. The first fall of 3s. 10s. per ton affected not only our sales of copper, but it also, as I explained just now, affected our stock of copper in Australia, which were taken at 24. 10s. per ton less than on June 30, 1882. You will also remember that we were very sanguine of having a large supply of copper ore; but, on the contrary, this fall in the price of copper has prevented the mines producing the copper they would have done, and, therefore, the supplies fell off. I should also mention that our manager, who has been acting with the very greatest prudence, has lost several lots of copper, in consequence of the price which he offered having been under the other tenders. He was very careful, seeing that the margin of profit was so small, to make his tenders as close as possible, and in doing so we lost several parcels of ore. There has been great competition for these ores in Australia; excessive competition I may say, because the Wallaroo Company compete with us for every parcel of ore put up, except what we get from the Balade Mine. The same would apply with regard to the northern district, which is our hopeful point. The northern district is, under the auspices of the Corporation of South Australia, opening out. Up to the present they have not done a great deal; but they have two very fine mines which they have been opening out at very great expense. I think they have expended something over 20,000l. in opening out these mines, and as far as they have gone, especially with respect to the Blinman Mine, they have done very well. They have five or six places where the ore contains over 20 per cent. of copper, and there is no doubt that if they are sufficiently strong to open out the mine fully we shall have a good supply of ore from there. Up to the present time we have had only a very small quantity; 230 tons from the Blinman Mine and 200 tons from the Mount Rose Mine, both belonging to the Corporation of South Australia. The mines are being opened out and galleries made; they are putting up very extensive machinery for sinking, and also for raising, and we may hope that in the course of a few months, if they carry on their works to the extent we believe they will, these mines will prove a good source of supply. If so, we shall be in a much better position with regard to competing than we are at the present time. It is necessary to keep the furnaces working, and to keep them working we must compete for ore, and sometimes we have to give out prices for the ore, so as to keep the furnaces going. We take stock only once a year, and I hope we may look forward more hopefully to the end of the year, when, even if the price of copper remains as it is now, we shall in all probability be in a dividend position. I do not know that there is anything else to refer to, as the statement sent you contains nearly all that could be said as to the working of the six months; but I shall be happy to answer any questions.

Mr. GAHAGAN: There seems to be a very heavy item here of 1049s. for interest in Australia which I should like to hear some explanation about. I find, too, that the home charges come to about 1860l. a year. Could not that be reduced in any way? I cannot imagine that you require a large staff of clerks to carry on the business in this country. It seems a large item, considering that the balance carried down only amounts to 722l.

The CHAIRMAN: I should be glad to see the item of interest paid in Australia larger, because it generally increases as we have a larger amount of business to do. We often have over 100,000l. worth of copper in transit, and it stands to reason that we have a considerable interest to pay on the over-draft. If we had not this over-draft we should require further capital to supply our wants. The rate of interest has been higher this half-year. It is now a little over 10 per cent. per annum; but our drafts are put upon a first-class footing, as mercantile drafts, and we always have the advantage of getting them discounted as first-class paper, and I do not think we have any reason to complain of that. The London charges are just the same as usual. When the business is good they look very light; when the business is not good they do not look quite so well. The item includes the directors' fees.

Mr. GAHAGAN: What are the directors' fees? Are they a fluctuating or a fixed sum?—The CHAIRMAN: They are 600l. per annum, and 5 per cent. on the dividend when we pay one.

Mr. FREWER, in reply to Mr. BOND, said the greatest caution was exercised in purchasing the ores. He added that the depreciation in the stock held in Australia when the stock was taken represented a dividend of 1s. a share.

The CHAIRMAN, in reply to Mr. HEATH, said the board had the fullest confidence in the present manager, who had been under the late manager for 14 years. He was strongly recommended by Mr. Cook, the late manager, and he believed that in their manager they had an honest, truthful, and efficient officer.

On the motion of Mr. BOND, seconded by Mr. GAHAGAN, a vote of thanks was passed to the Chairman and directors, and the meeting then closed.

CHILE GOLD MINING COMPANY.

An extraordinary general meeting of shareholders was held at St. Michael's Hall, George-yard, Lombard-street, on Thursday.

Mr. J. HARVEY in the chair. Mr. J. SYKES WRIGHT (the secretary) read the notice calling the meeting, and the circular was taken as read.

The CHAIRMAN said: The present meeting is called according to the Joint-Stock Companies Act to confirm the resolution passed at the previous special meeting, and this must be done within a calendar month. We were in hopes that Mr. Nicholson would have been here to address you, but circumstances have occurred to prevent him. Among other things, it is necessary that all our titles to the Chile property should be sent to Caracas to be revaluated, and Mr. Nicholson has sent his agent to see to this, and the directors do not think it right that both should be absent from the mines at the same time. I am glad to inform you that what I stated last time as to the increased returns has been verified by the last telegram, which gives us 3400l. as the remittance—do not mistake that for the output—from June 20 to July 20. So far as we can tell, the yield is about 1.70 per ton, which is a considerable improvement upon what the rock yielded in the early part of the year. If we go on as we are doing (it is somewhat rash to prophesy) we shall soon be in a dividend-paying state, and it will not be long before we see our way to give the shareholders some reward for their patience. We have had a great many enquiries as to why we have not paid a dividend. I think the answer to that is given in the body of the circular which we sent to the shareholders on Aug. 1, in the extract from Mr. Nicholson's letter, dated June 20. "I am happy to report that considerable progress has been made during my absence, and that the boilers are in situ, and the new stamps in a forward state of construction. The mine has also been opened up. Every requirement as you say has been attended to with regard to machinery, and the mine now will be fairly equipped with machinery. It will take some months to put all in place, but every order and work has been done to promote economy in work and efficiency, and the result is the produce of 3000 ozs. last month out of what I call 'poor rock.' That compared very favourably with last year. We have not yet had accurate information that the boilers are at work. The additional 20 stamps should soon be, if they are not already, at work, and the yield of gold should consequently be very considerably increased. Should we happen to get on to rock giving 2 to 2 1/2 ozs. to the ton the returns will be considerably increased. It is not wise to prophesy or predict, but up to the present time our predictions have come tolerably correct. We have had as much as we expected for the first six months, and if we do as well in proportion during the last six months there will be something to reward the shareholders for having waited so long. There is no doubt that the value of our property is very great, especially if we compare it with the relative values of some of the adjoining properties. I see that one mine has just been registered with a capital of 600,000l. That mine has not for many years turned out an ounce of gold. This shows the confidence of the promoters in this mine—at all events, of those interested in it. If we compare that with our own I think you will confess that we have good value for our money—clearly as we have been in the first instance. I do not know that there is any occasion for me to detain you longer unless any shareholder after I put the resolution would like to address any questions to me. These I shall be ready to answer to the best of my ability. Some questions have been asked indirectly, but they are of such a technical character that I can only reply to them under the advice of our manager. Therefore, we had better await his arrival. I beg to move "that the following resolution which was passed at an extraordinary general meeting on July 19, 1883, and now read to the meeting be confirmed as a special resolution:—Resolved, that the Articles of Association be altered by adding

after Article 41, the several articles stated in the circular to the shareholders now read to the meeting."

Mr. McARDREW, in seconding the proposition, briefly adverted to the satisfactory state of the company as compared with some time ago. The improved output was more important, from the fact that it was raised from less quartz than a smaller amount would have been some months ago.

The CHAIRMAN said that the change made by the alterations in the Articles was not to assist speculators, but at the request of gentlemen abroad who wished to have a mode of transfer that involved less delay.

A desultory conversation then ensued as to the exact profits the company was making at the present time.

The CHAIRMAN said that without the accounts he could not pledge himself to precise or even approximate figures, and it was unfair to ask him to do so.

Mr. HAWKINS suggested the desirability of selling sections of the property if a neighbouring company could be floated with a capital of 600,000l. (Laughter.) The CHAIRMAN said it was premature to think of this.

The resolution was carried, and the proceedings closed with a vote of thanks to the Chairman.

TREWITTEN MINING COMPANY

The second annual general meeting of shareholders was held at the offices, Guildhall Chambers, Basinghall-street, on Friday, Aug. 3, Mr. JAMES B. CLARKE in the chair.

Mr. ALFRED E. JARVIS (the secretary) read the notice calling the meeting.

Mr. THOMAS BRENTON (a director) said:—Perhaps, Mr. Chairman, it may be interesting to the shareholders to know that of the capital of the company (12,000l.) 61657. has really been called up, and the other 1200 shares were issued in part payment of the property. Therefore, we have had 61657. with which to develop the property. You will notice that this is an extremely small amount of money for the development of a tin mine, but so far as the money which has been expended is concerned, you may be congratulated that it has been applied to such good purpose. Of this 6000l. odd there has been expended in machinery 2300l.; and I think it is due to the directors to say that they have been extremely careful in the expenditure of money for the purchase of machinery, and by securing it in the way they have done they have saved about 50l. per cent. The amount expended for plant and machinery since June, 1882, has been 1300l., including a stone-breaker, 62l., rock-drill, 72l., and steam-engine and boiler, 321l. For labour and material expended since June, 1882, 1699l. The working was commenced in October, 1881, so we have had only 21 months to do the work, and we consider we have got on exceedingly well. Our manager has advised us that he has made discoveries of ore such as would warrant us in laying out 2000l. in erecting more dressing and hauling machinery, and putting up larger pumping power, so that we may prosecute the work in a proper and business-like way. It seemed desirable to us as directors, acting in the interests of the shareholders, to send an independent and competent engineer to report on the property. We have, therefore, instructed Mr. Bell-Davies to inspect the property. We have other information that what our own manager has told us is perfectly correct—viz., that we have a magnificent property, and I am justified in saying that we have only to work in an energetic and economical way to make good returns. Some of the largest shareholders connected with the undertaking hold out very strong hopes, indeed, almost a promise to us, that if Mr. Bell-Davies' report is as good as we expect, there will be no difficulty in getting any capital we require, either by the issue of the 4000l. shares which are at present unallotted, or by debentures on the property. (Hear, hear.) I will now read the report from the captain which was received this morning:

July 31.—In handing you my report of the progress made since the last general meeting of the shareholders, I have pleasure in stating that the shaft is now sunk to a depth of about 25 fms. from the surface on the course of the lode. During the sinking of the last few fathoms the shaft has passed through the cross-course, which has naturally, to a certain extent, disordered the lode. I am, however, pleased to say that in the last 6 ft. sinking it has become more settled, and occasionally large rocks of arsenical mundic are being met with, which is precisely the same feature produced on approaching the cross-course above. No. 1 level east has been driven about 20 fms., and has opened up a profitable run of tin ground; for 20 fms. it may be fairly valued at 15l. per fathom (for 6 ft. wide), which will be sufficient to keep the 24 heads of stamps in constant operation, night and day, for six months. No. 1 level west has been driven 18 fms., the average value is about 10l. per fathom, but their shaft which has been sunk 7 fms. beyond the present end will produce tin to the value of 15l. per fathom. I have confidence in saying that in the backs of those levels alone over 4000l. worth of tin has been discovered. A further proof of the value of the lode has been shown by the stamping of 6 fms. of ground from a stope in the back of No. 1 level east, which has produced over 2 tons of black tin. I am also pleased to say that the mine is at present fairly supplied with pumping, hoisting and stamping machinery, and I am now engaged in completing the erection of the dressing machinery, which I hope to get in working order by the end of August, when I shall be in a position to keep the stamps at work night and day, and I have confidence in saying that the produce of tin will more than meet the working expenses of the mine.—CHARLES HOLMAN.

I think, gentlemen, you will all agree that that is a very satisfactory report, and that the directors are to lay out a sufficient sum of money to make early and profitable returns. (Hear, hear.)

The CHAIRMAN then moved the adoption of the report and accounts, which was seconded by Mr. BALL, and carried.

The directors were re-elected, and the auditors re-appointed, and a vote of thanks having been passed to the Chairman and directors, the meeting broke up.

SOUTH CONDURROW MINE.

The ordinary general meeting of shareholders was held at the offices of the company, Austin Friars, on Wednesday.

Mr. H. J. MARSHALL in the chair. Mr. EDWIN F. COLMER (the secretary) read the notice convening the meeting and statement of accounts for the 16 weeks, with costs charged to June 30. The costs, including merchants' bills and dues, amounted to 6531l. 12s. 2d. The tin sales (159 1/2 tons, sold at an average of 56l. 7s. 10d.) realised 8977l. 7s. 6d. The profit on the 16 weeks' working was 2436l. 14s. 5d., raising the balance of assets over liabilities to 4810l. 15s.

The agent's report was as follows:—Aug. 7.—Marshall's shaft is sunk 93 fms. below surface, and is in good working order. The driving of the 42 west of this shaft has been suspended for some time; but as we have recently made a communication between this and the level below, we hope soon to be able to resume the extension of the 42 west. There are two tribute pitches in the bottom of this level, worth 10l. and 15l. per fathom respectively. The 54 and the 66 ends west have had to be suspended for want of ventilation, but we have been rising and sinking in these levels, and have holed the wind to the rise. The drive of these ends will be urged on speedily. The lode in the stope in the back of the 54 west is worth 15l. per fathom. The 78 end west is in a hard run of ground, and is unproductive. The 93 end west has been extended 25 fathoms in a strong, kindly lode, yielding low quality tinstone. We have a great extent of unexplored ground before this end, and we consider it advisable to push on the level west on the course of the lode as we are now doing. We have recently begun to drive a cross-cut south of Marshall's shaft at the 93 with the view to intersect any other lodes that are standing in that direction; the granite in this cross-cut is easy for exploring, and looks congenial for tin. The lode in the 93 end, east of King's, is hard and unproductive, and as it is near our southern boundary we have suspended the drive till we have proved the character and composition of the lode below the 80. The 80 end east is worth 10l. per fathom; the stope in the back of this level is worth 18l. per fathom, and in the bottom it is worth 15l. per fathom. The 70, east of King's, is worth 12l. per fathom, and seems to be improving. The stope in the back of this level is worth 15l. per fathom. We have been driving the 70, west of Plantation shaft, on a lode with a slight dip or underlie north, and have sunk a winze a few fathoms below the level to prove it, but it has not been profitably productive. At present we are putting out a cross-cut south in the 70 with the intention of intersecting the main tin lode, which we think is not far ahead of the present end. In the 60 end, east of King's, the lode is large and very hard, and is worth 8l. per fathom. The stope in the back of the 60 is worth 15l. per fathom. The 50 end east has been unproductive for some time past, but it is now worth 7l. per fathom, and looks likely to improve. The stope in the bottom of this level is worth 8l. per fathom, and in the back the lode is worth 12l. per fathom. We have suspended the rising of the back of the 40, west of the cross-course, owing to defective ventilation, and have set the men to stop the sink the bottom of the 30 in a lode worth 15l. per fathom. The 30 end west is unproductive, but the lode being large and well-defined, and the ground easy for working, we hope the lode will soon improve. Two stopes in the back of the 30 are worth 15l. and 20l. per fathom respectively. We are rising and stopping in the back of the 20 below adit in a lode worth 12l. per fathom; it is whole ground overhead to surface, but in order to facilitate the discharge of the tinstone from the 20, and for ventilation, we have driven a cross cut north of engine-shaft some 30 fms., and hope in a few days to communicate with the stope referred to, when we shall be able to reach Wood's lode, which stands 40 fms. north of the tin lode at the 20. We have recently cleared and secured the 20 south and east to William's shaft, and shall soon begin to prove this south lode below the 20. We are keeping on a great deal of exploratory work on the course of the main tin lode, as well as pushing out speculative cross-cuts to intersect other lodes. We believe this plan of working is essential to the maintenance of permanent profits.—WILLIAM RICH, WILLIAM WILLIAMS, H. KING.

Mr. SHEARWOOD moved:—"That the accounts, with the agent's report now read, be received and passed."

Mr. LEACH seconded the motion, which was adopted.

The CHAIRMAN: I shall not find it necessary to occupy much of your time to-day. You have heard the accounts read, and you have had a full report from Capt. Rich. The accounts will have shown you that we have returned rather more tin than we did last time; but we have been prevented from reaping the full advantage of so doing by a drop in the price obtained. The average price of tin this four months has been 56l. 7s. 10d. For the same period in 1882 the price was 59l. 17s. The number of tons of tin raised this time was 159 1/2, and in the corresponding period of last year it was 135 tons. The cost of raising has been rather less, as is usually found to be the case as the quantity returned increases. For the four months ending December 25, 1882, the cost of raising amounted to 44l. 4s. 2d.; for the four months ending April, 1883, it was 43l. 14s. 11d., and in the four months under review it has been 40l. 10s. per ton. Certain errors had crept into the particulars of the amount called up and paid upon our shares, and so we thought it desirable to let the mining papers know the correct figures, and one has certainly already adopted

to the face of the No. 8 shaft workings, and after awhile we began to get the better of the feeder. After about six days hard drawing of water we were enabled again to get the sinkers into the bottom of the pit to proceed with the sinking. During the month we have been opening out the No. 1 seam as well as sinking, and have had to extend the No. 2 shaft to a greater distance from the No. 1 shaft, as the drifts above the coal in the shaft being so bad. I enclose a tracing showing position of coal drifts with the walling of the shaft, and arching of drifts. The following are the dist. nces in of the places driven in the No. 1 coal up to June 30:—North headways, 29 ft.; south headways, 30 ft.;

east end, 44 ft. It is not always possible to be working in the coal with the slinkers in the bottom, as it takes the engine all its time to draw water and stones from the bottom, but when it is possible we place men to draw the coal and draw it at old times when the slinkers are not in the bottom, by this means we will get the places in the No. 1 seam well planned out, ready to start with a good number of men in it when the No. 2 seam is reached, and the cages are put in. I expect to strike the No. 2 seam somewhere about 35 ft. below the No. 1 seam, but we are as I before said undoubtedly on a fault at the shaft, which may make a little difference, but as I know the fault I do not think it will be much in the way, as I know there is coal on both sides of it, and the faults we may probably meet north and south of the Helen are all known to me, and I know where to find the coal on the other side of them until I come to the big dyke north, and to the supposed end of basin to the south. The coal seems to be working well to the east, and dipping at about 10 in. to the yard, instead of 2 ft. as at No. 2 shaft workings.

NEW EMMA SILVER.—George Collins, July 16: Since my report of the 9th inst. the cross-cut has been advanced 12 ft., making the distance from station 180 ft. I have stopped shaft for the present, because of hoisting engine being too small to do our present work. Sinking will again be resumed as soon as new engine can be put in place. Have started a level, running west on the vein, from cross-cut; both this level and the cross-cut are in very favourable-looking vein matter. Coal for the winter supply is being delivered. Pumps working nicely.

PESTARENA UNITED.—Samuel Gifford, Aug. 1: Monthly report: At the Pestarena district the sinking of the incline shaft under the 130 has been resumed in a lode showing a small vein of low grade quartz. The north end of the 130, on No. 1 lode, is now yielding 3 tons of ore per fathom, worth 12 dwts. per ton. A good improvement has come in with a large lode, carrying two divisions of pyrites on the walls, which promises to continue. The end south is yielding 6 tons per fathom, at 1 oz. 4 dwts. of gold per ton. The lode has a spire of quartz and pyrites making on the western side, and appears about to improve. The 120 north is now in easy schist, with a small vein of sterile quartz, all ore having disappeared. The 80 north, being now beyond the dip of the ore shoots from above and continuing barren is suspended. On No. 5 lode the 90 north is yielding 7 tons per fathom, at 6 dwts.; the lode increases in size, being now 4 ft. wide, mostly of low grade quartz. The 90 south carries a little arsenical pyrites in a large lode of schist, but gives no ore to value. The 80 north is mostly in sterile schist, with a leader of decomposed shale impregnated with pyrites. The 80 south continues in a good sized lode sparsely impregnated with pyrites, and yielding a little milling stuff. The 55 south is in stiff and jointed siliceous rock, with a small branch of flintan underlying east. The 55 south seems about to show a change of dip in the lode as found in the other levels, and shows a small branch of marly shale only. The 33 north goes forth in a large sterile lode of mixed quartz and schist, the ore lately opened having died out. The adit driving south at Pozzone has shown a little ore with a divided lode, the rock being generally of a more kindly character than seen for some time past. The ore milled for July was 618 tons, which yielded 378 ozs. 13 dwts. 12 grs., or an average of 12 dwts. 6 grs. per ton.

Val Toppa. In No. 1 level, driving south on new lode, the floor opened is now clearly seen to be the slide taking its usual rise south in the mountain with a changed dip to the east. A lode of quartz and pyrites makes above and below it, with a marked throw on the line of division of its whole thickness; the appearance of it is very promising, and it is yielding 5 tons per fathom at 8 dwts. per ton. A trial winze on the quartz bed under the level is producing 12 tons per fathom at 7 dwts. per ton. This is put down to test a discovery lately made of a quartz mass forming against a cross-course, and going out flatly east, but the shape and direction are not yet fully developed. A rise south on new lode follows a small vein of quartz, which occasionally carries auriferous pyrites, and now yields 3 tons per fathom at 5 dwts. A cross-cut east from the slope in the back is being started to prove the ground above the large quartz bed worked in the flat slope, below where broken veins are seen rising out of it. During July 292 tons of ore were crushed, and 131 ozs. 2 dwts. of bar gold produced, showing an average yield of 8 dwts. 6 grs. per ton.

PITANGUI GOLD.—A telegram from Rio de Janeiro, dated Aug. 8, states that the produce for July was 850 ozs. of gold, worth, at 8s. 6d. per oz., 361s. 5s.

POSTGRIBAUD.—W. H. Rickard, Aug. 1: Roure: The 225 metre level, south from Taylor's shaft, continues in a regular lode, composed of quartz, but yielding no ore of value. The 200 metre level south is unproductive. No. 2 winze, below this level, yields a little low grade ore. The slope in the back yields fair quality stuff. The slope in the 100 metre level south, on Virginie's lode, yields low quality ore. The intermediate level, above the 100, has opened some stopping ground against the slide, worth 1½ ton of ore per current metre. The 80 metre level north, on eastern split of Virginie's lode, yields a little low grade ore. The 60 metre level, north of Boisay's winze, is unproductive. The same level on the northern split of the lode yields ¼ ton of

ore per current metre. The 20 north, on the eastern part of Virginie's lode, is suspended, and a cross-cut commenced from the main lode further north. The 20 south is also suspended, and the driving of the same level on the Virginie lode resumed. Our stopes generally throughout this mine are diminished in yield.—**St. Denis:** The 50 metre level north yields a little low grade ore. Finding the eastern part of the lode on which the 50 south was being driven to be very narrow we drove a cross-cut and intersected the western part of the lode, which is 1 metre wide, of a soft unproductive gangue, and letting out water very freely; we have set to drive on its course. The lode in the 30 metre level north produces a little fair quality ore for a width of 60 centimetres. The cross-cut in the 30 south has intersected the lode under the winze, where it is 60 centimetres wide, and showing spots of ore. The lode in the winze at the present time yields some stones of ore. The adit level south of the shaft, on the eastern vein, produces a little saving work.—**La Brousse:** The 200 metre level, north from Alice's shaft, yields low quality ore. The rise in the same level south will be communicated with the winze from the 160 during the present month; both points produce a little ore. The 120 metre level north is unproductive. Our stopes have produced fairly, but the falling off in the tribute pitches continues.—**Pranal:** The 110 metre level north yields ½ ton of ore per current metre. The same level south yields ¼ ton of ore per current metre. The cross-cut in the 90 south has intersected a second unproductive vein. We hope during the present month to communicate with the winze on the main lode. The 70 metre level north, on caunter lode, continues in disturbed unproductive ground. The same level on the direction of the main lode continues poor. The 70 metre level south yields ¼ ton of ore per current metre. Our stopes and tribute pitches throughout this mine maintain their yield.—**Surface:** Our dressing operations have gone on pretty regularly, but much time has—as usual at this season—been lost by our workpeople for the hay harvest, and the corn harvest will have a similar effect on the current month. Our samplings have amounted to 186 tons.

RODOLFO.—Telegram, July 20: All works on Chile lode at Peru running at full swing; 30 stamms running.

RHODES REEF GOLD.—Mine Manager, July 6: I am driving Nos. 1, 3, and 4 tunnels, and continuing No. 1 drive south, in which we have a fair reef 2 ft. wide, containing a little gold, and coming in better. We are also raising up to the surface on the reef in No. 1 drive. No. 1 tunnel, which is being driven on a large reef containing a little gold, is being turned to the east, and I am also putting in another tunnel, which will strike the reef in about 50 ft. more. We are keeping for milling only such quartz as we judge will pay, and I am piling it up, and while crushing it intend to treat the blanket and boulder sand in store.

July 13: We are pushing on Nos. 1, 3, and 4 tunnels, and the drive going south on the line of reef in No. 2 tunnel, where the reef is improving. No. 4 tunnel is within 12 ft. of the line of reef, and we are getting some quartz leaders, which, together with the large quantity of water coming in, gives us strong hopes that we will soon strike a large reef.

RICHMOND CONSOLIDATED.—Telegram, Aug. 7: Week's run (one furnace), \$15,000, from 297 tons of ore; refinery, \$18,000.

8. Longley. July 16: The 100 south drift from station has been run 19 ft. Total 571 ft. In limestone. The 100 north-west drift from above has been run 11 ft. Total 71 ft. On fissure in limestone. The 300 south-west drift from south-east drift has been extended 7 ft. Total 246 ft. In limestone. The 300 south drift from above has been extended 3 ft. Total 28 ft. In limestone. The 400 south-west drift from cave over No. 5 chamber, under 300 level cave has been run 10 ft. In limestone. Have temporarily discontinued prospecting work on 300 level, and propose prospecting by this drift the region to south-west under 300 level cave. The 1050 north-west drift from station (No. 1) has been extended 12 ft. Total 785 ft. In limestone. The 1050 north-east drift from run 30 ft. Total 194 ft. On fissure in limestone. The 1050 north-west drift has been extended 8 ft. Total 404 ft. In limestone. The 1050 east drift from north-west drift (No. 1) has been run 20 ft. Total 95 ft. On fissure in limestone.

RIO GRANDE DO SUL (BRAZIL) GOLD.—Henry Eddy, June 23: Serrito Mine: On further development I find that at the point where the productive leader contained visible gold a small branch has come out of the footwall, thus improving the lode for a length of 4 ft.; beyond this the lode is of low quality, but I shall prosecute the drive a little farther east. In depth the lode is 1½ ft. wide, and of a much more solid nature, evidently undergoing some change, as the special leader and the other part are formed together without any division joint. The lode is more freely spotted with galena than other I have developed here, but produces on account of its increased size less gold per ton than when it was a few inches wide. Report of results will be forwarded next week.—**Aurora Mine:** I removed the men from the bottom of the mine on the 18th to work along the surface in the porphyritic granite, where I consider there are better chances of success. I have also temporarily suspended No. 2 west, as the drive

age of No. 1 (nearly 10 fms. from surface) will fully prove the lode in this direction. On an important improvement in No. 1 the drive of No. 2 could be easily resumed. There is no material change elsewhere. Full report with measurements will be forwarded next week.

RUBY AND DUNDEBERG CONSOLIDATED.—July 15: Dundeburg: There is no material change since my last; there are 17 tributaries at work. Have shipped 14 tons tribute ore this week. The drift from the upraise above the 300 ft. level has been advanced 15 ft. during the week; total 50 ft. from the upraise. Three men at work.—**Home Ticket:** The new shaft has been sunk 10 ft. this week, total 161 ft. below the surface; a drift was commenced to-day in the direction of the ore body from the bottom of the shaft. The stopes are producing the usual quantity of ore. The ore in the north stopes is somewhat smaller, but it has the appearance of widening out again. Have shipped 118 tons ore this week; 19 men at work.—**Lord Byron:** The tunnel has been advanced 22 ft. this week; total 127 ft. Four contractors at work.

Telegram, Aug. 8: 80 tons ore shipped; 84 tons smelted, realising net \$1729; 26 tons tribute ore shipped, and 16 tons smelted, producing to company \$162.

SANTA BARBARA GOLD.—A telegram from Rio de Janeiro states that the produce for July was 2000 ozs. of gold, worth at 8s. 6d. per oz., 350s., and would probably leave a profit on the mine working account for the month.

SENTEIN.—M. Scantlebury, Aug. 2: For the moment we are not doing any stopping in the back of No. 4 level except at surface, where the lode for a width of 3 metres will produce 8½ cwt. of lead and blende ore per cubic metre. The No. 2 level, on the old workings in No. 3 level, west is producing 11 cwt. of lead and blende ore per cubic metre. The 2½ metres per cubic metre. Slope No. 1 in No. 3 level east is set to eight men to stopes at 20 frs. per metre cube, lode producing 10½ cwt. of lead and blende ore per cubic metre for a width of 3½ metres. Slope No. 2 in the back is set to eight men for the sum of 20 frs. per metre cube; lode yielding 11½ cwt. of lead and blende ore per cubic metre for a width of 3 metres. Slope No. 3 in the back is set to eight men for the sum of 22½ frs. per metre cube; lode yielding 12 cwt. of lead and blende ore per cubic metre for a width of 3½ metres. Slope No. 4 in the back is worth 13 cwt. of lead and blende ore per cubic metre. I hope to set this in a few days. Rise above this level is set to six men for the sum of 300 frs. per current metre; lode yielding for length of rise 2 metres 50 centimetres 1½ ton of lead and 3 tons of blende ore. You will see that we are opening out a good piece of stopping ground here, this is the same bunch of ore we have at the St. Amelie level.—**St. Amelie:** Slopes Nos. 1 and 2 are set to 15 men for the sum of 20 frs. per metre cube. The lode will average 3½ metres in width, and is worth fully 17½ cwt. of lead and blende ore per cubic metre. During the past month we have sent 1578 tons of crude ore to the floors, producing 9 per cent. of lead ore and 25 per cent. of blende ore. There are now about 620 tons of crude ore at the mine, which I estimate to produce 54 tons of lead and 125 tons of blende ore. The reason why the stock of ore has diminished is owing to so many of our miners having left for the harvest season. This has not affected us so very much. The cost at the mine for the month of July is nothing near so much as it was for the month of June, while on the other hand we have a pretty fair stock of crude ore in mine, and the men are now returning again to their places. A week since several of our miners gave in their notices, but have now withdrawn them. I am very pleased to be able to inform you that the discovery at the St. Amelie level is the best that has been made in the mine for years. We shall show as fast as possible and do our utmost to still increase the returns. The cable is working well.—**Dressing report for July:** Ore sent to dressing-floors, 1578 tons; ore dressed 1671 tons; market lead produced—first-class 76½ tons; second-class 47 tons; third-class 15½ tons; blende ore produced; first-class 236 tons; second-class 167½ tons.

ST. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, Aug. 10: Produce for the month of July 17,500 ozs.; value, 6781s.; yield, 3 ozs. 10 dwts. per ton.—**Culaba:** 1350 tons stamped; yield 1½ ozs. per ton.

UNITED MEXICAN.—Mr. May, Guanacato, July 7: Mine of San Cayetano de la Ovejera: In the frente of San Juan the measures now 80 centimetres, but it is in a ramified state, and, therefore, the produce is small; 37½ cwt. were remitted to Duran this week. In the contraleño of San Juan the quality of the ore is pretty fair, but the width of the lode has decreased to 1 metre, of which only 25 centimetres are productive. We have sent this week 21½ cwt. of ore to Duran. In the frente No. 2 of Santa Rosa west the claim seems to improve, while the breadth of the ore has increased to 45 centimetres. It is, therefore, supposed that the upper part of the ore we worked on in San Juan will soon be reached; 17½ cwt. were sent to Duran. In the contraleño No. 2 of San Andre's the lode is 1-75 metres broad, and the class of ore is perhaps not so good as it was last week. We remitted 52 cwt. from this working to Duran this week. In the frente No. 2 of San Andre's east the ore is good; but its width is reduced to 40 centimetres, and we have sent 21½ cwt. to Duran. In the frente No. 4 of San Andre's east the end is very pretty, showing good ore on a width of 1-90 metres. The hollow I spoke of continues to be seen in our advance trending off to the alto, and leaving the lode to the bajo all in ore. The extraction of ore from the end has been 16½ cwt. of ore, remitted to Duran this week. In the pozos No. 1 of San Andre's the quality of ore seems to be improving gradually, and the width of it has increased to 1-20 metres. We have sent 18½ cwt. to Duran this week. In the pozos No. 2 of San Andre's the lode has a breadth of only 38 centimetres; 11 cwt. have been sent to Duran. The extraction of ordinary ore from all the workings during the week has been 105 cwt., which, altogether, makes 449 cwt. hacienda ore sent to Duran; and I have sold 3 cwt. 1 arroba 17 lbs. of bonito (the whole coming from frente No. 4 of San Andre's east); total extraction 452 cwt. Returns from the mine of San Cayetano de la Ovejera for the two weeks ending July 7 \$11,625 14; outlay for the same period \$3335.

YORKE PENINSULA.—The directors have received advices from the committee of inspection of the company at Adelaide, with reports from the Kurilla Mine to June 5. The following are extracts from the report of Captain Thomas Anthony:—In handing you my monthly report on the mine on this occasion it will not be necessary to give you the lengths of the drives, &c., as a month hence I shall forward my yearly report to the end of the present month.—**Kurilla Lode:** At the 90, east of Hall's shaft on this lode, no change has taken place, but the lode has been reached, which it may be at any time during the ensuing month, and when ore may be reasonably expected. At the 67 east, on the south part, the lode is worth 2 tons of 16 per cent. ore per fathom. On the north part, at the same level, the lode still holds in this side, and is worth 3 tons of 16 per cent. ore per fathom. The lode in the 55 east (in section 398) on the south part is worth 3 tons of 16 per cent. ore. At the 35, on the south part (398), the drive has entered the ore ground driven through at the 45 and 55, and the lode is worth 3 tons of 16 per cent. ore per fathom. At the 25 I am driving east and west of the new hauling shaft (398), the lode is worth 2 tons of 16 per cent. ore per fathom. At the 20, south of Gurner's shaft (398), some good pockets of ore occur in driving east of the branch discovered by the cross-cut, but no regular lode is yet met with. The same branch in the 10 above is also yielding some good stones of ore, but only in pockets. The stopes on this lode continue without material alteration, and there is an appearance of permanency throughout the whole of the operations.—**Morphett's Lode:** The winze sinking below the 55 to further ventilate the 67, and facilitate the stoping of the lode, is worth 3 tons of 16 per cent. ore per fathom, and the stopes are looking well throughout.—**Machinery, &c.:** The machinery throughout is working satisfactorily.—**Ore Returns:** There were raised during May 450 tons of ore of 14 per cent. There was sold in the colony 342½ tons, and there remained on hand at the mine at May 31, 1937 tons, averaging 14 per cent.; of this 200 tons of from 17 to 18 per cent. was being shipped to England.

TEPLITZ ROLLING WORKS COMPANY.—The balance-sheet of this company for the past financial year shows a gross profit of 23,643s., against 20,107s. for 1881-82, and a net profit of 14,198s., against 11,634s. in 1881-82. The directors recommend a dividend at the rate of 15 per cent., against 13 per cent. for the previous year.

WIGAN COAL AND IRON COMPANY.—The report of the directors for the half-year ending June 30 states:—The output of coal has slightly increased. The demand for fuel was better maintained than in the corresponding half-year, but fell off as summer advanced. The prospects of increased prices for coal and slack, upon which the wages paid at collieries in this district were advanced 10 per cent. last winter, have not been sustained, and as there has been no reduction whatever in wages, the result is a serious diminution in the amount of profit which the company would otherwise have made. Seven iron furnaces were at work during January; since that time six only have been in blast. The work for the application of Whitwell stoves has been continued, and is nearly completed. Prices of iron have been lower, and the trade has been in a very languid and unprofitable condition. The new line proposed to be made by the Lancashire and Yorkshire Railway Company from Hindley to Pendleton would have prevented the company from making a projected colliery railway for connecting Eatock's Pits with their sidings at Westhoughton. The company opposed the bill, and after a good deal of negotiations terms were made by which a substantial sum of money is to be paid by the Lancashire and Yorkshire Railway Company as compensation. The Manchester, Sheffield, and Lincolnshire Railway Company promoted, and have carried through Parliament a bill for the extension of the Wigan Junction Railway through Longton, near Preston. Satisfactory arrangements have been made for communicating with the proposed new railway at several convenient points on the company's premises. The accounts for the six months ending June 30 last are presented duly audited. The result is a profit of 3917s. 5s. 9d. on the whole operations of the company. The amount carried over from last half-year's profits was 1968s. 19s. 4d., making together 5885s. 5s. 5d. Your directors propose to withdraw 3200s. from the reserve fund, which with the above profit will make 9885s. 5s. 5d., and they recommend a dividend after the rate of 1 per cent. per annum upon the paid-up capital of the company, free of income tax, which will absorb 9048s. 12s. 6d., leaving 37s. 12s. 11d. to be carried forward. The balance-sheet shows that the paid-up share capital of the company amounts to 1,809,725s., and there is owing on mortgage or debenture bonds 158,705s. 2s. 1d. The debts and liabilities of the company are put down at 103,016s. 16s. 2d., and the reserve fund amounts to 10,500s. The property held by the company includes:—Freehold land, 55,482s. 16s. 1d.; stock in trade, plant, collieries, coke ovens, steamships, &c., 1,604,068s. 9s. 4d.; and there are suspense accounts of 11,736s. 2s. 1d. for railway wagons, and 231,556s. 5s. 9d. for mine rents. The debts owing to the company amount to 166,400s. 9s. 4d.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk, Birchin-lane, writes:—*Opening:* Owing to a severe fall at New York, prices are below 34½. A price not seen for years. Atlantic Firsts in sympathy are below 45. Other American railways are mostly steady, Denver and Wabash in particular showing no change. Spanish Fours show no recovery as yet, there being a further fall of 1½ in addition to yesterday's 3½. Usually a change of ½ is considered a great event in the Spanish market. Many anxious to sell have been constantly underbid by the French. Unfired are nearly 1½ down—small wonder. East Wheel Ross, ½ to ¾; Organos, 1½ to 1¾; Treasvau, 7s. 6d. to 8s. 6d.; Herodotus, ¾ to ¾; call (3s.) paid; South Penitentiary, 1½ to 1¾, call (4s.) paid.—*Closing:* Spanish have rallied 1½, being now the same as at last night—58½ to 58¾. Unfired are also better, now 7½. Eries have been down to 33½, 38½ to 34½. Hudson Bay, 25½ to 25¾; Great Laxey, 15½ to 16; Devon Consols, 3½ to 4; Van, 5 to 5½.

IF NO ALLOTMENT IS MADE THE APPLICATION MONEY WILL BE RETURNED IN FULL.

South Phoenix and Caradon Mine (LIMITED).

Incorporated under the Companies Acts, 1862 to 1880, by which the liability of the Shareholders is limited to the amount of their Shares.

CAPITAL £30,000, IN 30,000 SHARES OF £1 EACH,

Of which 15,000 are offered for subscription, and 15,000, fully paid up, will be allotted to the vendors in full payment for the purchase of the property:

Payment—5s. on application, 5s. on allotment, and the balance in two calls of same amounts within six months from allotment.

DIRECTORS.

ARTHUR WILLIAM RIDLEY, Esq., 8, Eaton Terrace, Belgravia, S.W.

HENRY HOUSEMAN, Esq., 3, Princes Street, Storey's Gate, Westminster, S.W.

THOMAS GUNDRY, Esq., Torrey, Cornwall.

THOMAS HAMILTON, Esq., Abbot'sfield, Tavistock, and the Stock Exchange.

One or more additional directors to be elected by the shareholders at the first meeting.

BANKERS.

Messrs. ROBERTS, LUBBOCK, and Co., Lombard Street, London, E.C.

THE COMMERCIAL BANK OF CORNWALL (LIMITED), Liskeard, Cornwall.

SOLICITOR—ALBERT C. L. GLUBB, Esq., Liskeard.

AUDITOR—(To be chosen by the shareholders at the first meeting).

SECRETARY—WILLIAM J. LAVINGTON, Esq.

REGISTERED OFFICES.—DASHWOOD HOUSE, NEW BROAD STREET, LONDON.

PROSPECTUS.

The company is formed for the purpose of working the South Phoenix and Caradon Mine, in the parish of Linkinhorne, in the county of Cornwall.

The property is held under a grant from His Royal Highness the Prince of Wales, dated the 10th of May, 1883, for a term of 21 years, at a royalty of 1-20th, reducible on tin ores to 1-24th when the price of tin is under £50 per ton.

The mine is at present in full work, and is supplied with an extensive and valuable plant, machinery, &c., equal to carrying on operations on a considerably larger scale than at present.

Captain John Holman, who was agent of the adjoining South Caradon Mine during 28 years of its prosperity, and also manager during 14 years of that time, and Captain James Kelly, the resident agent, who has had considerable experience of mining, especially in this district, state:—

"It is rightly considered that the chances of success in mining are greater in a district which has been proved to contain vast deposits of mineral, and this property lies between and adjoins South Caradon, which upon an outlay of £640 has to the present returned £1,650,000 worth of ore; Phoenix United, which has paid in dividends over £200,000, and is at the present time making and dividing profits; and Marke Valley three of the most permanent and richest mines in the Liskeard district. The sett is for the most part in the granite, at the point of junction with the killas. The nature of both the granite and the killas is congenial for metalliferous deposits, and is of the nature in which lodes are usually found to be rich."

The South Caradon and West Caradon great cross-courses traverse the sett. These have been found to have beneficially influenced the lodes in South Caradon, West Caradon, and Phoenix United Mines.

The principal lodes passing through the property are known as Grace Dieu, Green Hills, Marke Valley Copper, and the Wheal Jenkin lodes.

On Grace Dieu lode a shaft has been sunk to the 65 fm. level, where the lode is large and strong. This lode, having regard to the small extent and little depth at which it has been worked, has been productive in every level, and tin ores have been broken from it of the value of about £3500. The tribute pitches are yielding tin at good profit, and there is tin ground already open to keep 24 heads of stamps constantly at work for a considerable period.

Green Hills lode has been extensively worked for tin by the "old men," and, as all the lode to the surface has been taken away, it is evident that it was rich. Very rich copper has been discovered on this lode, and it may fairly be expected, as was the case in the Phoenix United Mines adjoining, that a deposit of copper may be found overlying and alongside of the tin.

Marke Valley Copper lode has produced many thousands of pounds worth of ore in the adjoining Marke Valley Mine, but is practically unwrought in this sett.

Wheal Jenkin lode is regarded as the champion lode of the district, as large gullies and heaps show the extensive workings by the "old men" for tin, extending over 400 fms. on the back of this lode. Extensive operations on this lode close (20 fms. from) to the boundary have lately been commenced by the Marke Valley shareholders, who

are sinking a shaft, and have provided a steam-engine, dressing-floors, and plant, with the sole object of developing it.

In accordance with the recommendations of the agents, it is proposed to sink on Grace Dieu lode, below the 65 fm. level, as well as to open up the other lodes by a cross-cut from the present engine-shaft, or by clearing the shaft at present existing on the Wheal Jenkin lode. These points "are of rare promise, and can be tested with but little outlay of money, and in a short time."

Captain John Truscott, manager of the Phoenix United Mines, has inspected the property, and says—"In conclusion, I would remark that, should you carry out the suggestions I have made, involving not much outlay, I have no doubt but that a valuable and profitable mine will be laid open."

Capt. Richard Gluyas, the agent at West Phoenix Mine, who has had a long experience in tin mining both in East and West Cornwall, and whose opinion is most valuable, says in his report:—

"Looking at the many advantages the mine possesses in having four extremely promising lodes that can be cut and proved at a considerable depth—that you have reserves of tin ground already opened that will last you over 12 months, supposing you had twice as many stamps at work as at present, and that the reserves can be rapidly increased by sinking the shaft and driving the 65—I am of opinion that the mine can be made a lasting and very remunerative property with a small additional capital and in a short space of time."

The Caradon and Looe Railway traverses the sett, by which coal, timber, and materials can easily and cheaply be brought to the mine, and the produce conveyed to the port.

The working capital is considered ample for all purposes, and will be devoted to developing the resources of this valuable property. The company will take over the property as from July 28th, to which date all expenses will be paid by the vendors, to whom belong all ore raised to that date.

The working capital reserved is £15,000. It is not anticipated that more than £5000 will have to be expended to put the property into a paying state. No promotion money has or will be paid.

The expenses incidental to the formation of the company, up to and including registration, will be borne by the vendors. Where no allotment is made the application money will be returned in full.

The only contracts entered into, and which can be seen at the offices of the company, are an agreement dated the 6th day of July, 1883, and made between Henry Houseman, Richard Hawke, and William Gundry of the one part, and the South Phoenix and Caradon Mine (Limited), of the other part; and a Deed of Declaration of Trust and Indemnity, made between the South Phoenix and Caradon Mine (Limited) of the one part, and Henry Houseman, Richard Hawke, and William Gundry of the other part.

The reports of Capt. John Holman and James Kelly, Capt. John Truscott, of Phoenix United, Capt. Richard Gluyas, of West Phoenix, and Capt. Tyack and Clogg, also the Memorandum and Articles of Association, can be seen at the offices of the Company.

Forms of application may be obtained at the Company's office, of the company's bankers and solicitor.

BRITISH MINES.

producing good work for tin and 8 tons of arsenical ore per fathom; No. 2 is producing good work for tin and 8 tons of arsenical ore per fathom. There are four men in each of these stops; the price for stoping is 3*l.* 10*s.* per fathom. No. 3 stop is set to four men at 2*l.* 15*s.* per fathom; the lode is strong and masterly, producing good tinstuff, saving work for copper, and 7 tons of arsenical ore per fathom. The lode in the 65 end, west of Belfry cross-cut, is producing good tinstuff, 5 tons of arsenical ore, and 1 ton of copper per fathom; price for

TO THE METAL TRADE.

FOR COPPER, TIN, LEAD, &c., apply to—
Messrs. PELL, BOYLE, AND CO.,
SWORN METAL BROKERS,
ALLHALLOWS CHAMBERS, LOMBARD STREET, LONDON.
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LEATHER SERONS

Empty, but which have been used for the transport of ores.

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NICKEL AND COBALT REFINERS,
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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, AUG. 10, 1883.

IRON.	£ s. d.	£ s. d.	TIN.	£ s. d.	£ s. d.
Pig, G.M.P. Clyde...	5 11	—	English, ingot, f.o.b. ...	97 0 0	—
“ Scotch, all No. 1 ...	2 7 9	2 8 0	“ bars ...	98 0 0	—
Bars Welsh, f.o.b. Wales ...	5 0	—	“ refined ...	99 0 0	—
“ in London ...	5 15 0	—	Australian ...	93 5 0	93 10 0
“ Stafford ...	7 2 6	—	Banco ...	—	nom.
“ in Tyne or Tees ...	5 15 0	—	Straits ...	93 5 0	93 10 0
“ Swedish, London ...	9 10 0	10 0 0	COPPER.		
Rails, Welsh, at works ...	5 5 0	—	Tough cake and ingot ...	66 0 0	67 10 0
Sheets, Staff., in London ...	8 5 3	9 10 0	Best selected ...	69 0 0	70 0 0
Plates, ship, in London ...	8 10 0	8 15 0	Sheets and sheathing ...	73 0 0	75 0 0
Hoops, Staff., in London ...	7 0 0	7 5 0	Flat bottoms ...	76 0 0	78 0 0
Nail rods, Staff., in Lon. ...	7 0 0	7 5 0	Wallaroo ...	68 10 0	69 0 0
STEEL.			Burra, or P.C.C. ...	68 0 0	68 10 0
English spring ...	12 0 18	0 0	Other brands ...	65 10 0	66 10 0
cast ...	0 0 45	0 0	Chilli bars, g.o.b. ...	63 7 6	63 10 0
Swedish, keg ...	15 0 0	—	QUICKSILVER.		
“ fag. ham. ...	15 0 0	—	Flasks, 75 lbs., wat. ...	5 12 6	—
Rails at works ...	4 10 0	4 15 0	PHOSPHOR BRONZE.		
“ Light, at works ...	6 5 0	—	Alloys I., II., III., and IV. ...	£122 0 0	—
LEAD.			“ VI. and VII. ...	138 0 0	—
English, pig, common ...	12 12 6	—	“ XI., Spl. bearing metal ...	114 0 0	—
“ L.B. ...	12 15 0	—	BRASS.		
“ W.B. ...	13 0 0	—	Wire ...	7 1/4 d.	—
“ sheet and bar ...	13 10 0	—	Tubes ...	9 1/2	—
“ pipe ...	13 15 0	—	Sheets ...	7 1/2	7 1/4 d.
“ red ...	15 10 0	15 0 0	Yel. met. sheath. & sheets ...	5 1/2	5 1/4
“ white ...	18 10 0	18 0 0	TIN-PLATES.		
“ patent shot ...	15 10 0	—	Charcoal, 1st quality ...	1 0 1	2 0
Spanish ...	12 7 6	—	“ 2nd quality ...	0 19 6	1 0
Metal per cwt. ...	—	—	Coke, 1st quality ...	0 17 0	17 6
Or 10 percent, per ton. ...	—	—	“ 2nd quality ...	0 16 0	17 0
SPELTER.			Black ...	15 10 0	—
Silesian, ordinary brands ...	0 15 5	5 0	Canada, Staff. or Gla. ...	12 0 0	—
“ special brands ...	0 15 7	7 6	at Liverpool ...	—	—
English Swansea ...	15 15 0	—	Black Taggers, 450 of ...	30 0 0	—
Sheet zinc ...	18 15 0	19 0 0	14 x 10 ...	—	—

At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; 1X 6s. per box more than 10 quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—Our market was closed from last Friday night to the following Tuesday morning, so that this has been a rather broken week, and business, in consequence, has been, more or less, interfered with. Upon the resumption of business, however, on Tuesday, no features presented themselves whereby the trade might be improved; but, on the contrary, there was a manifest dullness, and nothing to break the previous monotony. In fact, holders appeared to be weary of the long delay in any improvement, and thought it more advisable to rid themselves of their stock. This idea, to some extent, was carried out in practice, and hence prices displayed an easier tendency, and concessions were made; but without stimulating the demand. The characteristics of the market at the present time seem rather to justify the action pursued by holders, and more particularly in those metals where prices have long been bolstered up in the vainly-cherished hope that some fresh feature would soon arise to bring about such a restoration in the demand as to diminish present heavy stocks. It matters not how we look at the markets, all sides appear exceedingly gloomy, some more so than others, it being only a question of degree as to which is worse than the other; the prospects are dimmed, the horizon is clouded, and all hopes of a coming resuscitation appear to be based upon a feeble and most unsubstantial foundation. The harvest prospects are marred by the constant inclemency in the weather, so that those who were looking forward to a revival from this cause can no longer place that confidence in its beneficial influences, which they once expected. Deliveries in many metals continue good, and tend to show a constant growth in trade; but supplies exceed them, and stocks are augmented, causing great anxiety to many holders. Shipping orders are not very plentiful, and advices from abroad do not favour the expectation of a shortly increased business with our colonies. In the far future, when those colonies become more opened up, there may be, and probably will be, increased trade with this country; but for the time being there is little chance of recovery, apparently either in the trade out there or at home. With such advices as these before them it is not surprising that holders should begin to realise.

It often requires considerable temporary sacrifice to bring the markets back again to their ordinary state, and, as the great evil in the trade now appears to be excess in supplies over requirements, the only remedy, although one very much against sellers, seems to be to reduce prices to such figures as will check supplies coming forward in their present heavy quantities. It is pretty evident that current rates leave some profitable return to suppliers, otherwise they would scarcely continue to effect supplies upon the present large scale. While reduced rates would tend to lessen the supplies, they would also materially help to stimulate the demand, and hence the two influences, working together, would soon bear an important influence of a favourable nature upon the markets. However, just now, there is a decided prospect of an immediate curtailment in the production, and the great fear which exists, and which holders, in many instances, evidently realise is, that suppliers will continue to send forward supplies in large quantities, and which may tend to keep prices down for a very long while. While all our markets opened with a dull tone, some have, later on in the week, shown slight symptoms of recovery, at the same time the improvement has not been very marked—a mere market fluctuation, and one to which no importance can be attached. Any stringency in the money market might have a very critical influence upon our markets at the present time.

COPPER.—This market has continued dull, and prices have not undergone much alteration. On Tuesday there was a slight fall upon the price being quoted at the close of last week, which was followed by some recovery, but afterwards the market again became easy. Holders are certainly to be congratulated upon maintaining their market for so long a time; they have had to contend against all manner of adverse features. There has been at times a marked scarceness of legitimate demand, an absence of speculative enquiry; there have been supplies in excess of the wants of the trade; heavy charters to damp the tone, and increased stocks to depress the feeling, and yet, notwithstanding all this, holders have invariably succeeded in supporting the market, with but few adverse fluctuations they have been able to effectually bolster prices in spite of so many events being against them. First one adverse feature has arisen, and has not passed by until another has cropped up of a more or less weighty influence. Holders have held to their own for long; but, unfortunately for them, the prospects do not brighten as time progresses; but, on the contrary, they seem to become rather worse. Previously these adverse features, to which we have made reference, have been influencing the market, if not separately, yet only one or two at a time; but now they come in combination, in full force against a weak market, and it is evident that holders will have to make a considerable strain to maintain prices in the same able manner as they have heretofore done. It is in the price of Chilli bars that any alteration is most probable, although other descriptions will also be influenced. It cannot be urged that the statistics issued for last month were exceptional, and, therefore, some allowance should be made for the excess in stocks, because if we look at the figures for the last 12 months it is seen that the total Chilli charters were 43,200 tons, against 41,850 tons during the previous 12 months. The total supplies for the same periods were 89,746 tons, against 81,446 tons, and the total deliveries 85,739 tons, against 81,677 tons. The figures are all adverse, and, further, the total visible stock is fully 1000 tons more than what it was a year ago, so that, comparatively speaking, the market is in a very unsatisfactory position.

IRON.—Business is not very large, and manufacturers in all the

manufacturing centres seem to be rather badly off for orders, and consequently they are rather easy in their quotations; but the trade has assumed such a state of lethargy that low prices seem almost to fail in producing any restoration in the demand or causing any encouragement or temptation to buyers to make purchases. General merchant iron is very slack, except, perhaps, in the case of sheets, which for consumption appear to be in very fair demand, and which has caused a fair amount of strength in prices for that particular description of iron. The price of Swedish iron continues firm; but the demand for Indian assortments is not so large as could be desired, and buyers' and sellers' idea of prices are by no means upon a par. In pigs there is very little change to report; but it is satisfactory to find from the Glasgow report which we give this week that the shipments continue good, and the comparisons for the three last years show a continued increase in the total exports, signifying that the requirements of the trade are growing. This is a good feature, and helps to give steadiness to the market, and another point of a favourable nature is that activity is reported to reign in almost every branch of the Scotch trade. But, at the same time, notwithstanding this favourable feature, prices do not improve, either for warrants or makers' iron, because the market is not sufficiently attractive to speculators, and production is so fully maintained that operators are shy to use their influence in pushing up prices, because they naturally argue that if supplies are fully sustained at current rates, they would doubtless be proportionally increased if prices were advanced. This has proved so often the case upon previous occasions that now there is an almost entire absence of any speculation in the market, and prices consequently remain stationary. The Glasgow Warrant Market was closed last Monday, owing to the Bank Holiday, and on Tuesday there was a good business done, chiefly at about 47s. 6d. cash; but afterwards the price gave way, and closed at 47s. 3/4d.

On Wednesday the market was dull, with a moderate business at 47s. 3d. to 47s. 2d. cash; and the same characteristics were visible in the market yesterday, and prices were easier, business being done between 47s. 1/4d. and 47s., and the closing quotation this afternoon is 46s. 11d. The shipments last week were 13,722 tons, against 13,579 tons for the same week of last year, being an increase of 143 tons, and which makes the total shipments for the whole of this year 381,223 tons, against 379,930 tons for the same time of last year, and 335,366 tons for the similar period of 1881. The number of furnaces in blast continue at 115, and the public stock has only been increased by 54 tons, and now amounts to 584,492 tons, against 584,438 tons last week. The imports of Middlesbrough pig-iron into Grangemouth last week were 4630 tons, against 3825 tons for the corresponding week of last year, being an increase of 805 tons, and which makes the total increase for the whole of this year, compared with last, 27,259 tons. The holidays at the commencement of the week have rather tended to restrict business on the Cleveland market, although the inactivity is at the same time also due to other causes; for instance, there is inanimation upon the Scotch market to produce a depressing influence, and the deliveries are also said to be somewhat below the recent average. The total reduction in stocks last month is estimated at 4800 tons; but this quantity being less than what was generally expected, it has also helped to dull the tone. With regard to prices there is not much change; sellers are indisposed to make material concessions, and are tolerably firm at 39s. from second hands for No. 3, and makers quote 39s. 3d. to 39s. 6d. There is next to nothing doing in warrants, which are nominally quoted at 39s., while Messrs. Conal and Co.'s stock shows no change for the week. Although many of the mills and forges are turning out large quantities of iron, yet in prices there is scarcely so much firmness for some descriptions; but there is no quotable alteration, common bars being quoted at 51. 15s., angles at 51. 12s. 6d., ship-plates at 61., and puddled bars at 12s. 6d. per ton.

According to advices from Wolverhampton the recent strike seems to have been quite brought to a close, and the works around West Bromwich and Smethwick have now generally resumed work. The enquiry for sheets is barely so good as it was a short time back, but makers have made some good forward contracts, and prices are consequently firm. Sheets are quoted at 81. for singles, double 10s., and later at 81. 12s., while thin tank plates may be had from 77. 15s. to 81. There is but a small demand for pigs at 62s. 6d. for all mines, and 40s. for cinder pigs. The Birmingham market is likewise more cheerful from the same cause as has influenced the Wolverhampton trade, and at a meeting which was held yesterday afternoon of the Employers' Association it was decided that the present sliding scale should continue to regulate wages until a new basis had been formed, and that all disputes were to be submitted to arbitration. There is a better demand for pigs, and also for manufactured, while prices all round are reported steadier.

TIN.—For the greater part of the past week this market has been rather neglected, and the little extra speculative feeling which characterised the market at the close of last week not being continued; prices at the opening on Tuesday last were easier, and on the following day fell considerably, but afterwards became steadier, and have since remained without great change, although the tendency has been weak. It will be remembered at times last week that prices for both cash and forward parcels were about on a par. This was a thing which could not last long; the market was wavering and undecided, and it was evident that some change either for better or worse must soon be effected. It is not difficult to assign a reason for the undecided course prices assumed; there had been an exceedingly good legitimate demand, but supplies had been also heavy, and these contrary influences had naturally made the market undecided. There is nothing to complain of in the number of transactions that are being carried through for the actual wants of the trade; but the prospects are made gloomy by the absence of speculative buying, principally caused, no doubt, by the maintenance of large supplies. Operators are deterred from buying because they think with this adverse feature so continuously at work prices must sooner or later be reduced; at any rate all chances of profit are so materially minimised that they believe it to be more prudent to abstain from making contracts.

STEEL.—This market shows but little change, prices being for the most part steady, and there is a fair demand for most descriptions. SPELTER is quiet and unchanged in price. We quote 151. to 157. 6s. for ordinaries. LEAD is flat, and 121. 5s. has been accepted for Spanish, at which price, however, no more is obtainable, 121. 7s. 6d. being now asked. White English is quoted at 121. 12s. 6d. per ton. TIN-PLATES remain fairly steady at unaltered prices. Quotations generally are firm, and coke wasters are proportionately high in value in comparison with primes. QUICKSILVER.—The Board of Trade Returns for July are as follows:—

Imports—July	1881.	1882.	1883.
January—July	367	430	13,266
Exports—July	45,846	41,990	52,354
January—July	1,323	2,908	3,718
January—July	12,758	21,444	29,223

The arrivals of Spanish have now come to an end, making a total supply for the season from this source of 48,045 bottles, as compared with 45,736 and 44,989 in the two previous years. The market is quiet at 51. 12s. 6d. from first, and 51. 10s. from second hands.

Dullness still reigns in the MINING SHARE MARKET; very little business has been transacted this week, and prices remain merely nominal. One or two good discoveries, however, would soon change the aspect of the market, which at present has very little inducement to speculators who like to see activity prevailing, and do not always go for the realisation of the results of mining. A few transactions have taken place in South Caradon, West Caradon, West Gomanema, Prince of Wales, Leadhills, Tankerville, Wheal Agar, and a few others.

TIN has been weaker, and a majority of the smelters reduced the standards for ore 2d. at the end of last week. Tin mines are not much dealt in. Blue Hills, 1/2 to 3/4; Cook's Kitchen, 26 to 28; Carn Brea, 6 1/2 to 7; Dolcoath 61 to 63; East Pool, 42 to 42; East Blue Hills, 1/2 to 3/4; Killifreth, 2 to 2 1/4; New Kitty, 2 to 2 1/4; North Blue Hills, 2s. to 3s.; South Frances, 9 1/2 to 9 3/4; West Frances, 2 1/2 to 3; West Kitty, 13 to 13 1/4; Wheal Agar, 1 1/2 to 1 1/4; Wheal Basset, 5 to 5 1/2; Wheal Grenville, 6 1/2 to 6 3/4; Wheal Kitty (St. Agnes), 1/2 to 1 1/2; Wheal Uny, 2 1/2 to 3 1/4.

South Condurrow, 8 to 8 1/2; at the meeting here a dividend of 8s. per share (24497.) was declared, leaving a credit balance of 23617. The tin sold, 159 tons, realised 8994., and a profit on four months' working of 2496., and a credit balance of 48107., out of which the dividend was declared. West Peavor, 3 1/2 to 4; Phoenix and West Phoenix United, 2 to 2 1/2; the accounts at the meeting, charging costs paid June 16 and crediting tin sales to Aug. 1 (including tin not sold, 8007.), 96097. 2s. 4d., show a credit balance of 337. 3s. 3d. The amount due to merchants and others is 53207. 17s. 11d., the largest item being to the bankers (Clymo, Treffrey, West, and Co.), 34327. 10s. 6d. On the other side, taken as an asset, as 14287. 3s. labour cost, and 8007. for tin unsold. The committee state that they cannot recommend a dividend on the present occasion; but are pleased to find that the prospects of the mine are very encouraging. West Poldice, 1 to 1 1/2; at the meeting the accounts showed a loss on four months' working of 12897. 6s., and a balance against the mine of 23397. 10s. A call of 4s. per share was made. The tin sold, 36 tons, realised 17967.; copper, 7047.; arsenic, 1537. Tincoff, 7 to 7 1/2; West Phoenix, 1 to 1 1/2; Goodveer, 1 1/2 to 1 1/4; Mounts Bay, 1/2 to 3/4; Tresavan, 2 to 3; South Crofty, 7 to 7 1/2; Wheal Peavor, 3 1/2 to 4.

COPPER is not so firm, and there is very little doing in shares. Bedford United, 1 1/2 to 1 1/4; Devon Great Consols, 3 1/2 to 3 3/4; East Caradon, 1/2 to 3/4; Gunnislake (Clitters) 1 1/2 to 1 1/4; Marke Valley, 1/2 to 3/4; Mellanear, 3 1/2 to 3 3/4; New Cook's Kitchen, 1/2 to 3/4; New West Caradon, 4s. to 6s.; New Caradon, 1/2 to 3/4. West Gomanemas have been in good demand, and leave off 6s. to 8s. West Caradons are

firm at 1/2 to 3/4. This group of mines has been specially inspected, and the reports are considered very favourable. South Caradon (Limited), 1/2 to 3/4; a trial cross-cut at the 110, east of Kittow's lode, has resulted in the intersection of a lode 1 ft. wide, worth 107. per fm. The 160 is worth 2 tons per fathom. The month's sampling is computed at 192 tons of ore. South Devon United, 4s. to 6s. Devon Friendship, 1/2 to 3/4; the stopes continue to yield the usual quantities of mineral, and the mine is looking well throughout. Sortridge, 2s. to 3s.; the 40 cross-cut has been quite cleared, and the drive to intersect the north lode has been commenced. Price of Wales, 1/2 to 3/4; the lode in the 90 west is now 7 ft. wide, producing copper and tin throughout. The points in operation altogether are valued at 437. per fathom. West Crebor, 1/2 to 3/4; the prospects are improving. Wheal Crebor, 2 1/2 to 2 3/4; the points in operation are improving. South Penstruthal, 1 1/2 to 2. West Devon, 4s. to 6s.

LEAD mines are dull, and scarcely any business doing; quotations are quite nominal. Vans are quoted 5 to 5 1/2; Great Laxey, 1 1/2 to 1 3/4; Roman Gravel, 7 to 7 1/2; Tankerville, 1/2 to 3/4; Leadhills, 2 1/2 to 2 3/4; D'Eresby Mountain, 1/2 to 3/4; Great Holway, 5 to 5 1/2; Holway Consols, 1 to 1 1/2; Coed-y-Pedw, 1 1/2 to 1 3/4; Sinclair, 2s. to 2 1/2; Gwyn-y-Mynydd, 1/2 to 1 1/2; Weardale, 1 1/2 to 1 3/4; East Rose, 11s. 3d. to 13s. 9d. Herodsfoot, 1/2 to 3/4; at the meeting a call of 3s. per share was made. South Darren, 1/2 to 1; the 120 west is worth 1 1/2 tons of silver-lead ore per fathom. The winze below this level is worth 1 1/2 tons per fathom. Great West Chiverton has been specially inspected this week, and the prospects described are of the most favourable character, being in one of the West Chiverton lodes. The amount paid on the shares is 6s. 6d., and it is difficult to get a quotation as they are rarely dealt in, and are said to be held by very few shareholders.

FOREIGN MINES.—Alamillos, 1 1/2 to 2; Almada and Tinto, 7-16 to 9-16; Anglo-African Diamond, 2 to 3; Australian, 2 1/2 to 3; Birds-eye, 1 1/2 to 1 3/4. Bratsberg, 2 1/2 to 2 3/4; the Mary Owen has arrived at Swansea with about 250 tons of ore. The Samuel Holland will sail from Norway with another cargo next week. Callao Bis, 1/2 to 3/4; Cape Copper, 47 to 50. Chile Gold, 1/2 to 3/4; the remittance for June is 3400 ozs. of gold from about 2000 tons of quartz, being 25 days' work with 40 stamps. This compares with remittance for the corresponding month of last year of 1832 ozs. of gold from 1022 tons of quartz, being 23 days work with 30 stamps. Chontales, 1/2 to 3/4; Colombian, 6s. to 8s.; Colorado United, 1 1/2 to 2 1/2; Copalpo, 3 1/2 to 3 3/4.

Devala Moya, 1/2 to 3/4; Eberhardt, 1/2 to 3/4; Fortuna, 3 to 3 1/2; Frontino and Bolivia, 1 1/2 to 1 3/4; General Mining, 5 1/2 to 6 1/2; Hoover Hill, 1/2 to 3/4; Indian Consolidated, 1-16th to 3-16ths; Indian Glenrock, 1-16th to 3-16ths; Indian Phoenix, 1-16th to 3-16ths; Indian Trevelyan, 1-16th to 3-16ths; Kapanga, 1/2 to 3/4; La Plata, 1/2 to 1 1/2; Linares, 3/4 to 3 1/2; Marbella, 2 1/2 to 3; Mason and Barry, to bearer, 1 1/2 to 1 3/4; and much business doing; Michipicoten, 1/2 to 3/4; New Emma, 1 1/2 to 2; Nouveau Monde, 1/2 to 3/4; Organos Gold, 1 1/2 to 1 3/4. Panulillo, 6 1/2 to 6 3/4; constant efforts are made to depress these shares, but the regular payment of handsome dividends seriously interferes with the operators' efforts. At their meeting this week the directors resolved, at the request of several leading shareholders, to pay dividends quarterly in future. A dividend of 3s. per share, free of income tax, being at the rate of 15 per centum per annum for the quarter ended March 31, will forthwith be paid to shareholders now on the register. The board has also resolved to call in for payment a further sum of 50000. of debentures, making, with 50000. paid off in May last, a total redemption of 100,000. for the year, and reducing the company's debentures to 25,000.

Potosi, 1/2 to 1; a telegram received by the directors and dispatche from the mines July 20, says:—"All workers on Chile lode at Peru running at full swing. Thirty stamps running." Rhodes Reef, 1-16 to 3-16; Richmond, 6 1/2 to 6 3/4; Rio Tinto Bonds, 100 to 102; ditto, Shares, 21 to 22; Ruby and Dunderberg, 1 1/2 to 1 3/4. South Australian Copper Mines Corporation, 1/2 to 3/4; a telegram received on Wednesday from the Colonial Committee states that the dressing machinery at the Blinman Mine is now working eight hours a day, and as soon as the tramways and the tip-plates are completed this time will be doubled. South-East Wynaad, 1/2 to 3/4. St. John del Rey, 105 to 115; the produce for July was 17,500 oits. of gold, worth 7817., the yield being 3-4 oits (about 28s. worth) per ton. At Cuibaba, 1350 tons were stamped, yielding 1-6 oit. (about 13s. 7d. worth) of gold per ton. Tharsis (21. shares), 6 1/2 to 6 3/4; the authorised capital of the company is now 1,250,000., consisting of 625,000 shares of 21. each fully-paid, of which 587,330 are issued. As the April dividend was 55s. upon the 107. shares, the distribution was equal to 11s. per 21. share, into which the capital is now divided. Tolima, 6 1/2 to 6 3/4; United Mexican, 5 1/2 to 6 1/2; Western Andes, 5 1/2 to 5 3/4.

The Market for Mine Shares on the Stock Exchange has remained as was anticipated, without animation, and the continued depression in the metal market has anything but a cheering influence. The smelters have reduced the tin standards 2d. per ton. Several new companies are in process of formation, and it is evident from the manner in which the public have received those recently launched that, although there is no chance of raising capital where exorbitant purchase prices are charged, or where, by the creation of large numbers of vendors shares, those who actually provide the cash receive but a fraction of the profit should the concern succeed; yet capitalists are quite ready to give their support to legitimate enterprise. If a concern be in profitable working order, the owners do not bring it into the market for sale; if it require development, it is of little or no present value, so that the payment of the vendors should be in proportion to the profit realised by the capitalists who provide working capital; thus where the company's nominal capital is 100,000., and the purchase price 50,000., in fully paid, it might be provided that no allotment be made until three-fourths of the shares offered for raising the working capital be subscribed for, and that no immediate issue of vendors' shares should be made, but that for each 10 per cent. per annum paid as dividend to the shares issued 10,000. worth of fully-paid shares should be issued to the vendors. The vendors would still be paid in full when the capitalists had received a return of but half of their subscribed capital, and bona fide owners of sound workable property would be but too glad to sell on such terms. At present the capitalist is placed at an unfair disadvantage, because allotment is made when but a small percentage of the working capital is subscribed, the promoters' main object being to secure the issue of the vendors' shares, which are at once thrown upon the market for anything they will fetch, and to the obvious injury of all who have any real money stake in the enterprise.

Our usual telegram from Cornwall this evening states that the Cornish Mine Share Market has been rather quiet this week, and transactions restricted in sympathy with the tin market, and the fall of 2d. in the standards. The changes in shares are not important, but Dolcoaths and West Frances are hardly so strong, whilst fair business in East Pools, Pedn-an-dreas, and South Frances has been done. At South Condurrow a profit of 24967. was reported, 8s. per share being divided. At West Poldice a loss of 12897. was shown, increasing the debit balance to 23397. At South Frances meeting a profit of 4607. was shown, and a good report presented. In connection with the mine lease question Mr. Lawrence, the district representative at Penzance of the Western Morning News, has received a letter from Mr. Jesse Collings, M.P., who writes:—"The subject is a very important one, and is another branch of the great question of the land reform which is becoming the great necessity of our day. I have not had time to read your pamphlet, but I shall do so at the first opportunity with much pleasure."

The Dolcoath adventurers at their special meeting on Monday did not come to any decision as to the formal recognition of the fraudulently created shares in circulation; but it is hoped that at the adjourned meeting on Friday next all will be amicably arranged. The mine looks as well, or better, than ever; Captain Thomas has made what all reasonable people will consider an ample excuse for the negligence of himself and the committee in failing to prevent the Mayne frauds, any if the adventurers follow the good example of the Bank of England when notes had been forged on their own paper—keep silence and pay them, which in their case would be to formally recognise the fraudulently created shares as genuine, all will have cause for congratulation. It appears that at least 198 of

ROYAL MINING ACADEMY AT CLAUSTHAL (PRUSSIA).

72ND SCHOLASTIC YEAR, 1883—1884.

The LECTURES of the WINTER HALF-YEAR will COMMENCE on the 9th of OCTOBER, 1883.

Programmes to be had (gratis) on application to—

THE DIRECTOR,
BERGRATH DR. V. GRODDECK.

Notices to Correspondents

NICKEL.—"R. J. C." (New York).—There is a very limited demand for nickel, and if any considerable quantity were sent into the market the price would probably fall 75 per cent. at once. It could not be expected that America would take any extra as there are several discovered deposits on the Pacific Coast now idle, and it is probable that ere long it will be sent from the American mines in the form of metal. Some two years since Mr. W. Bell, of Oakland, California, discovered large workable deposits in the Table Mountain and Cottonwood canyon district, and a correspondent of the San Francisco Mining and Scientific Press now states that since that time Mr. Bell has been experimenting upon the feasibility of extracting the metal upon the ground; this he has accomplished by smelting several bars of nickel from the ore as taken from the ledge, and a furnace of peculiar design is now being erected by Smith and Bell, in Sacramento city, in order to thoroughly demonstrate the practicability of erecting a smelter upon the mines, when we hope to again bring the State of Nevada into notice and renew the flush times of the Comstock, as there is no doubt but these nickel mines will open out far beyond all expectations, as large bodies have been exposed which grade from 7 to 30 per cent. Work is being pushed forward as fast as possible, and the company are determined to leave nothing undone to thoroughly develop their property.

FOREIGN REMITTANCES.—Subscribers and advertisers when they remit by Post Office Order from Sweden, Norway, Denmark, Belgium, the Netherlands, Germany, or other countries in which the Post Office authorities undertake the transmission of the order, will oblige by sending Postcard direct to our office, stating that they have remitted, with date and amount. Otherwise the remittance is liable to be wrongly credited, as we are entirely dependent on the courtesy of the English Postmaster-General in ascertaining the name and address of the remitter.

Received.—"J. M." (Anstruther). The letter has been forwarded.—"R.": Whenever anything reflecting upon the character of another is published under a pseudonym the postmark and date will be given, so that the party attacked may have some indication of the identity of his opponent. It is very easy to attack an objectionable principle without attempting to injure the person who may, perhaps, without evil intention have adopted it.—"K. C. B." (Manchester): The statement that the aggregate value of the points in operation is so much per fathom is fallacious and intentionally misleading, because the aggregate cost of working the said points is concealed. The fallacy of this kind of valuation is so generally understood and objected to by shareholders that it is now seldom adopted.—"J. R. P."—"J. T."—"N. B." (Brisbane): Thanks. There ought to be no difficulty in obtaining British capital for Queensland mines if they be offered on equitable terms. Heavy purchase prices cannot now be obtained in England.—"G. H. C."—"H. K."

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, AUGUST 11, 1883.

RAILWAY AND DOCK DEVELOPMENT IN WALES.

When we consider the vast extent of the South Wales coal field which is yet undeveloped, and the wide-world demand which exists for its almost priceless productions, there is little ground for wonder at the efforts which are being constantly made for greater facilities of transport and shipment. The Royal Commissioners who made their report some 12 or 15 years ago, after the most scientific and pains-taking enquiries, stated that the superficial area of the South Wales coal basin was no less than 906 square miles, the total quantity of coal being stated in round numbers as 36,566,000,000 tons. After making all necessary deductions it was estimated that there was within 4000 ft. of the surface 31,783,000,000 tons of workable coal. Calculating that the present rate of consumption is about 15,000,000 of tons per annum, the coal in the South Wales basin will last considerably over 2000 years, a time sufficiently remote to allow our descendants of those days to turn their attention to other fields or other modes of generating heat. It is necessary to bear these enormous figures in mind to show that however great the development for many years to come, no appreciable deduction can be made in the practically exhaustless resources of the South Wales district.

It would be an oft-repeated story to relate the rapid and enormous growth of the ports of Cardiff, Newport, Swansea, and the other Bristol Channel ports possessing connection with the South Wales coal field. Cardiff is now the third exporting port in the whole of the United Kingdom, exporting more than 5,500,000 tons of coal last year, and will probably export something like 7,000,000 tons this year. This is a larger quantity of coal than shipped in all the other Bristol Channel ports put together, and more than double the quantity exported by Cardiff 12 years ago. The question very naturally here arises—has the dock accommodation and the railway facilities increased proportionately with this enormous expansion of the coal trade? We are bound to say it has not. In round numbers there are about 120 acres of dock accommodation in Cardiff, the Marquis of Bute alone possessing about 80 acres; and the whole of this enormous trade is practically served by one railway—the Taff Vale—which virtually has a monopoly of the coal carrying trade of the district. The consequence of this state of things is that the docks at Cardiff have become congested; frequent delays occur in the transport and shipment of coal, and colliery proprietors, merchants, and shippers have to submit to vexatious delays, and pay very much heavier railway and dock charges than they otherwise would did more dock accommodation exist, and better railway facilities provided.

It can hardly be denied that such a state of things is most unsatisfactorily regarded either from the colliery owners or the shippers stand point. The colliery proprietor is naturally anxious to still largely develop his property and open fresh pits, but is hampered and restricted, as it would be useless so to do, the dock accommodation not affording adequate facilities for the present trade. Ship-owners decline to send their vessels to Cardiff in the present congested state of the docks, knowing the detentions which take place in getting cargoes, and the heavy expenses incurred. There is thus an almost universal demand for largely increased dock accommodation on the one hand, and a break up of the pernicious monopoly of the Taff Vale Railway Company on the other. And this demand found expression in the scheme which has just been so tenaciously fought before the Parliamentary Committees of both Houses, known as the Barry Dock and Railway Bill. The bill was promoted by landowners, shipowners, colliery proprietors, and the public generally, who subscribed voluntarily no less than 600,000*l.* towards the Barry Dock scheme, and would doubtless provide double that amount if required. The promoters also undertook to ship in the new docks a larger quantity of coal than at present shipped in the whole of the present docks in Cardiff provided their scheme in its entirety was carried out. These two facts alone show the opinion of those most interested in the trade, and one would have thought sufficient to prove the necessity for the new dock and railway. The scheme provided for the construction of extensive docks at the Island of Barry, some 6 miles from Cardiff, and connected with the Taff Vale Railway at Penarth and Treforest with a line up the Rhondda Valley. This scheme was of course opposed tooth and nail at every stage by the Marquis of Bute and the Taff Vale Railway Company. Both parties had almost any amount of financial resources at their back, and being determined to maintain monopolies which they have enjoyed for so many years, and from which they derived such immense incomes, they fought tenaciously, if not desperately, to preserve their

vested interests. The Marquis showed that he was constructing more docks in Cardiff, and that other docks were being pushed forward by others, which would give accommodation for a great accession of the coal trade; and the Taff Vale Company attempted to show that with the alterations and additions they were making the railway facilities would be equal to all demands. The Committee of the House of Commons declined to be guided by these assertions, feeling that the main principal of the proposed bill was the break-up of the present monopoly, and consequent reduction of the railway and shipping charges, and they unanimously declared the preamble of the bill proved. The Committee of the House of Lords, however, rejected the bill, or rather they declined to sanction the making of the railway as asked for, and it is obvious that without railway accommodation the new docks would be worse than useless. This was a severe blow for the shippers of Cardiff and the colliery proprietors of the Rhondda Valley, but we can hardly expect that they will rest satisfied with such a decision, but will fight until they have secured their object, costly as the battle has been in the past and will be in the future.

The shippers and colliery proprietors of the western end of the South Wales coal field have also fought a most costly battle before both Parliamentary Committees during the present session, but fortunately they have been more successful. The Swansea Bay and Rhondda Valley Bill, which seeks to give direct and unbroken access between the Rhondda and Avon coal districts and the port of Swansea, was thrown out last year on account of the opposition of the Neath Harbour Commissioners and the Neath Corporation to the crossing of their river by a bridge. Nothing daunted, however, the promoters this year again applied for powers, substituting a tunnel for the bridge. True to their instincts the Taff Vale also opposed this scheme as "poaching upon their preserves," of which they supposed themselves to have a monopoly. The bill was also determinedly opposed by the Great Western Railway Company and the Neath authorities. The promoters have, however, triumphantly carried their bill before both committees. They had an unanswerable claim. The Harbour Trustees of Swansea have just opened deep water docks, constructed expressly for large heavy tonnage ocean-going steamers, and these docks would be comparatively useless without direct and independent communication with the Rhondda valley. The colliery proprietors of the Rhondda and the Avon districts have long yearned for direct access with the port of Swansea, so as to divide the traffic east and west. The owners of the important steel, iron, tin-plate, and other manufacturers of the Swansea district proved that the steam coal of the Rhondda was invaluable for their works, and that they could consume many thousands of tons annually if cheap supplies could be obtained. The Great Western Railway who opposed the bill had two schemes before the committee for improving the access with Swansea, and the Taff Vale resented any interference with the Rhondda. The bill was carried in the Commons Committee after several days hard and costly fighting, but the opponents continued their warfare before the Committee of the Lords, again entailing enormous costs upon all parties. The committee, however, declared the preamble proved, a decision which was received with much satisfaction and general rejoicing on the part of the public. Both the Great Western bills were subsequently thrown out, and the Rhondda and Swansea promoters left masters of the field. The new line will now be vigorously pushed forward, and doubtless part of it will be in operation early next summer. It will unquestionably break the monopoly which the Taff Vale has hitherto had of the Rhondda valley, and will divide the spoil with that company. Doubtless too many of the colliery proprietors who have found their hopes and prospects frustrated in reference to the Barry Dock scheme will now transfer their support to the Rhondda and Swansea Bay scheme. When the connection with Swansea and the Rhondda is in full operation the shipments of Swansea will increase as rapidly as those at Cardiff have hitherto done, and the necessity of new docks at Barry will not be so imperatively demanded. The coal field, however, of the Rhondda and Avon districts is of such vast extent and so rich in deposits that it has abundant supplies for all comers, and the greater railway and dock facilities the better for all classes interested.

THE ROYAL COMMISSION ON ACCIDENTS IN MINES.

The Commissioners have been busy at Woolwich with experiments as regards lights, and the report, not yet being ready, we are favoured with a summary established by the evidence given on the various questions raised. From the summary itself the report is not likely to be a valuable one, though the Commission has been occupied about four and a-half years in going from place to place, examining witnesses, visiting the underground workings of mines, and taking part in experiments. The summary, in fact, merely reiterates opinions that have often appeared in print, more especially in the *Mining Journal*, and our views, although by no means new, have been endorsed by the summaries so far issued by the Royal Commission. The propping of the roof of mines, it is said, is apt to be delayed too long, or to be done imperfectly, unless it be made the work of specially selected men. To ensure the safety of the men, we have urged the necessity for men being specially appointed to superintend the timbering as in the "deputy system" of the North of England. Opinions, the Commissioners state, are unanimously in favour of improving ventilation by splitting the air and shortening the travelling roads. This has never been disputed, for by judicious splitting almost any quantity of air can be sent through a mine. It is the same as having a number of pipes to take water from one reservoir to another in lieu of one. At the Hetton Colliery, such was the skilful management of these splits that by means of natural temperature alone on a winter's day it was found that as much air went through the workings (100,000 cubic feet per minute) as could be obtained at some other large mines by the use of immense furnaces or fans. By having a separate split to ventilate each range of workings, the air is brought much cooler and purer to the miners, and is an admitted improvement in connection with the ventilation of mines.

In coal mines there is no question of more importance than that of the comparative safety of the different methods of working, and the Commissioners state that in Scotland the longwall system is considered only suitable for seams under 5 ft., which is at variance with English and Welsh examples. The longwall system is now that most generally adopted, even with seams up to 10 or 12 ft., as it is thus unnecessary to leave pillars of coal standing, and a larger output per acre results. In the Great Midland coal field the longwall predominates. In getting coal by machinery it is also the only system that can be favourably adopted. From experiments carried on for some three or four years by means of holing with a machine the amount of slack produced in a 7 ft. seam was less than 8 per cent., and where the holing was done in 3 in. of dirt 95 per cent. of the coal was obtained. Where there is a strong roof all the coal can be taken as the men proceed. At the same time the system that will work well at one mine may not do so at another, as much depends upon the state of the roof, &c. Safety and economy are the great desiderata in working mines, and as a universal system is out of the question, it is only by experience that the most suitable can be determined.

Explosions of gas in mines, as might be expected, is specially noticed by the Commissioners, but there is no suggestion made as to how they can be prevented. Blasting is known to be most dangerous, and has doubtless been the cause of many fatal explosions, and at one place it is stated upwards of 600 shots are fired daily. Of course, blasting in some mines is always attended with danger, and as the Commissioners state that in some mines powder may be safely employed, so that general prohibition would not be justified. Sudden outbursts of gas are also noticed, but not much is said with respect to them, excepting that danger from them can be best averted by the drilling of holes, so as to allow the gas to escape. This has been carried out for several years in South Yorkshire, where such outbursts have been most prevalent, and where their probable origin has received a great deal of attention from the mining engineers of the district.

From the above facts it will be seen that the Royal Commission, from whose efforts such great things were anticipated as regards the minimising the loss of life from accidents in mines, and showing how many of the latter could be prevented, have been principally engaged in taking evidence, so that the report, whenever it is issued, is not likely to add much to our scientific knowledge in connection with mining operations. Neither can we expect that it will bring forward any data on which legislation can be founded for the purpose of lessening the fatalities which take place in mines, although the great majority of them are preventable. We are certainly promised an elaborate treatise on the value of the various safety-lamps now in use; but those who expect to find anything new and really important in the report of the Commission in connection with mining we believe will be greatly disappointed.

GOVERNMENT MINE INSPECTION IN CORNWALL.

In the general remarks in his report for last year Mr. R. J. Frecheville, H.M. Inspector under the Metalliferous Mines Regulation Act, states that at the commencement of the year 1882 the price of black tin was 65*l.*, and at the close 51*l.* 15*s.* per ton, the average for the year being 59*l.* per ton, at which price he regrets to say there are but few tin mines in Cornwall which can be worked at a profit. The list of mines in his district is a long one, but many are worked on the most limited scale, and produce little, if any, mineral. East Wheal Crebor and West Chiverton Mine have been abandoned during the year, and have complied with section 14 of the Act by sending plans and sections of their underground workings. Mr. William Teague, jun., of Carn Brea and Tincroft Mines, has greatly improved his ventilating apparatus referred to in his previous report. As a means of clearing the ends and levels from noxious fumes and smoke, in mines where boring machinery is employed, and a large quantity of explosive necessarily used, it is invaluable, both as regards the health of the workmen, and also economy in the use of that excessively expensive power, compressed air.

During the year 1882 there were 28 mines in the district using boring machinery, and 57 machines constantly at work—15 Eclipse, 11 Champion, 11 Darlington, nine Barrow, five MacKean, three Cornish, one Ingersoll, one Schram, and one Normandy Stillwell drills; from which it appears that the advantages obtainable from the employment of machine drills over that of hand labour in opening out mines are now fully recognised. This is more specially marked in those mines where the ground is unusually hard. These machines have so far been employed in driving levels and putting up rises, as up to the present time in this district they have not been successfully used in either stopping or sinking.

With reference to the relative danger of ascending and descending mines by ladders and the single-rod man-engines in use in his district, he finds that during the 10 years 1873—1882 the totals of the numbers of men that have used ladders amount to 94,929, and those that have used man-engines to 19,651. With the former there have been 18 fatal accidents, and with the latter only 3; consequently the death-rate per 1000 for the 10 years is with ladders 189, and with man-engines 152. Further, taking into consideration the fact that the mines where man-engines are used are much deeper than those served by ladders, so that the distance actually travelled by the men in going to and coming from their work is much greater in the former class of mines, it will be seen that these statistics prove single-rod man-engines to be considerably safer than ladders. In Germany, where double-rod man-engines are generally used, the reverse is the case.

The time that cages or, as they are locally termed, gigs have been used in the district is as yet too short to institute a fair comparison between them and the other modes of ascent and descent; however, there can be no doubt that in suitable shafts, provided with properly arranged winding gear, and in well-conducted mines, cage riding is very safe. Not only is the work of climbing ladders in deep mines most injurious to the health of the men, and very false economy on the part of the adventurers, but it also indirectly tends to swell the number of fatal accidents, as the miners when exhausted by their work, and having the prospect of a long and arduous climb before them, will occasionally yield to the temptation of riding to surface in the skips used for drawing mineral, in spite of all regulations and efforts on the part of the mine agents to prevent the practice. This is a fruitful source of accident in his district, having occasioned the death of no less than 11 persons out of a total of 331 killed by accident during the 10 years 1873—1882.

The system of communicating signals from underground to surface employed in the mines of his district is very defective. A great improvement could be made by the introduction of electric signalling apparatus, such as that exhibited by Messrs. Walker and Oliver, of Nottingham, at the annual exhibition of the Mining Institute of Cornwall, held at Camborne in December. During the year in his district the conditions of the Acts have been fairly well complied with, and the managers of the different mines have very willingly rendered him every assistance in the performance of his official duties. During the past year he has made 248 visits to mines, of which a large proportion included underground as well as surface inspection.

GOVERNMENT INSPECTION OF COLLIERIES—MAGISTERIAL DECISIONS.

It is so generally acknowledged that the operation of the several Mines Regulations Acts has been highly beneficial to the working miners in rendering the pits so much safer that a vastly increased output of coal has been possible without any augmentation in the number of deaths per annum from accidents that it is essential the Inspectors should have all necessary legal assistance in the shape of decisions, the impartiality of which is beyond the smallest taint of suspicion. That it was considered, when the enactment of the measure was under discussion in Parliament, the Inspectors would have more than ordinary difficulty in securing unbiased decisions in cases arising under the Act is evident from the wording of the 6th section, which provides that "a person who is the owner, agent, or manager of any mine to which this Act applies, or the father, son, or brother of such owner, agent, or manager shall not act as a court or member of a court of summary jurisdiction in respect of any offence under this Act," and there have been since many proofs that it would have been far preferable had the provision been that no cases under the Act should be heard except by a stipendiary magistrate or paid judge. That those on the Commission of the Peace are all honourable gentlemen anxious to do justice to all who come before them is freely admitted; but from the dry legal point of view they are the merest noodles, the majority of them being from their absolute ignorance of technical law necessarily dependent on the magistrates' clerk to make their amateur judgements passable. To say this is no reflection upon Justices of the Peace, since these cannot reasonably be expected to satisfactorily perform the duties of one of the learned professions without any education whatever to fit them for it—and it is probable that, except in such matters as parish squabbles, affiliation cases, drunken disturbances, and the like, none would be so glad as the justices themselves to have the responsibility placed in more competent hands.

Some little feeling has been created in the Whitehaven district by the reference which Mr. Willis, H.M. Inspector for the district, made in his annual official report, just published, to the decision given in

August last, at the Whitehaven Police-court, when the charge of negligence preferred against the agent and manager of the William Pit, Whitehaven Collieries, was dismissed. Whilst under an ingeniously devised cross-examination a competent and truthful witness once said to the judge who was hearing the case—"My lord, My answers, Yes or No, to the questions put are truthful, each by itself; but without explanation each is a gross falsehood, or only partially true." It is so with almost every cross-examination—the questions are put not with a view to elicit the truth, but to obtain admissions which can be used to pervert the truth in summarising the evidence. This is well understood by the regular judges, but is usually too much for the amateur justices on the Commission of the Peace, and hence the ludicrous decisions of these worthies, so frequently complained of. Briefly stated it appears, to judge from the evidence alone, and without any knowledge of the pit or the parties to the dispute, that a slope had become choked by a fall, and the ventilation deranged, that due diligence was not used in clearing the slope, reliance being placed instead upon bratticing; that fear of further falls rendered it difficult to clear from the bottom of the slope, and presence of gas was an obstacle to clearing from the top. The cross-examination of the witnesses for the prosecution did not suggest that the difficulties were inseparable, or that any attempt had been made to remedy the evil and failed, but was directed to show that neither the Inspector nor sub-Inspector had suggested any method of dealing with the matter.

Now it cannot be too widely understood that not only is it no part of the Government Inspectors' duty to direct what shall be done, but that it would be culpable on his part to do so, since it would be removing the responsibility from and interfering with the control of those entrusted with the management of the pit. Mr. Willis is charged with freely admitting when under cross-examination "that under the circumstances of the last fall, what he would have done would have been to have tried to clear it away; but until that had been done he could not suggest any other system of ventilation than that which had been adopted"—and, further, "that he would have prosecuted whether the Home Office decided to do so or not;" but it is so obvious that the first statement simply means that the obstruction should have been cleared at once, and the second that he considered the neglect culpable—the law does not permit him to prosecute until he has the sanction of the Home Secretary—that it would have been unnecessary to even refer to them had it not happened that they seem to have influenced the magistrates' clerk in suggesting the decision to be given.

To the practical reader it will be difficult to see anything weak in the evidence, whether in chief or as elicited in cross examination, of either Mr. Willis or his Assistant; but the case affords another instance of the necessity for limiting the hearing of colliery cases to stipendiaries, as such disputes are annoying to the magistrates, and calculated to encourage infraction of the law. This is evidently the opinion of Mr. Willis, for he remarks—"Perhaps a dismissal of a case is to be preferred to a conviction with 6d. penalty, which was my experience some years ago in a case of non-fencing, where no practical man, I venture to say, would have said otherwise than that if the Act had been fulfilled a fatal accident, which had taken place, could not have occurred. This was not before the same Bench; but the same magistrates' clerk was present in each case. I am of opinion that all mining cases should be tried before a stipendiary magistrate. In small towns political, professional, and commercial relationships are sometimes very powerful." The Mines Regulation Acts have already done much good, and it is to be hoped that nothing will be left undone to make it even more effectual.

QUININE FROM GAS TAR.—It has been truly said that the history of gas tar is almost a romance, so numerous, wonderful, and valuable are the products of its decomposition. From it, by means of the magic of modern chemistry, the sweetest of scents, the most brilliant of colours, and the most powerful of disinfectants and oils have been obtained. Yet, valuable as have been the discoveries from the distillation of coal, yet a great deal more may be expected from the scientific research still going on; and in noticing this subject some time since we expressed the opinion that quinine would be manufactured artificially from the gas tar, for it was whilst endeavouring to effect such a result that Mr. Perkins was led to the great discovery of mauveine and the beautiful aniline dyes. Now we are told that Professor Fischer, of Munich, after a long series of investigations concerning the nature and action of quinine, has found that a substance can be obtained in the form of a white crystalline powder from coal tar which resembles quinine in its action on the human organism. By its application there is a rapid diminution of fever heat, and its efficiency in this respect is said to be remarkable, as it will render the use of ice in fevers unnecessary, whilst it assimilates with the stomach even better than quinine. Although the new discovery may not have all the properties peculiar to quinine, it at least brings us nearer to finding the true and minute properties of quinine, and the true character of its agency. The discovery has been patented, and works established for its production under the direction of Professor Laubenheimer, of Giessen. Still further discoveries in the same direction may now be looked forward to. Prussic acid has been obtained from gas tar, and there is now every reason to believe that brandy itself will be produced from the same source, seeing that the capabilities of distilled coal are yet but partially realised.

THE WORKING OF STRONTIAN IN SICILY.—The recent introduction of strontian into the manufacture of tyes has given considerable importance to this mineral, which is comparatively scarce. Besides the deposits in Westphalia, those of Sicily are rather extensive, as to the working of which the Chemiker-Zeitung gives the following details:—"The celestine, or sulphate of strontian, is found at Favara, near Girgenti, in the strata of the lower Miocene rocks, which in Sicily generally contain sulphur. These strata consist of limestone, calcareous marl, and gypsum, in the midst of which the sulphur is disseminated, generally in the form of fine powder, and more rarely in nodules the size of a pea or nut. At Favara sulphur is not present to any great extent, but is partly replaced by sulphate of strontian. The upper strata of the rocks, which are mainly horizontal, are decomposed by the action of the air; the light mineral particles are carried along by water, while the celestine, which is heavier, and therefore less liable to be carried away, remains in blocks on the surface. In appearance it differs but little from the limestone with which it is associated; but it is easily distinguished by its greater specific gravity (3.9), on account of which it has received the local name of *cuchiommo*, from *cume* (like lead). The ore is at present only worked open-cast at Favara, no regular mine workings having yet been attempted. The inhabitants of the region lead it down to the railroad stations at Girgenti or Palermo, where it is bought by merchants at 35 lire (28s.) a ton. At Porto Empedocle it is screened, to free it from the gangue, and then shipped for Hamburg and other ports. In 1880 only 1000 tons were exported; but in 1881 the production increased to 4000 tons. Works are now going up at Rosslau, in Alsatia, for the conversion of the Sicilian ore into caustic strontian and carbonate of strontian, this latter (strontianite) not being found in Sicily."

MINING INSTITUTE OF CORNWALL.—Two new numbers—the seventh and eighth—of the Proceedings of this Society have just been issued through Messrs. Lake and Lake, of Truro, and contain papers and the reports of discussions upon them, which cannot fail to be of great utility to practical miners generally. The papers were fully referred to in the *Mining Journal* when they were read. The present numbers include the papers on Mining Explosives, by R. J. Cunnack; Technical Education of Miners, by C. Twite; the Dressing of Tin Ore and Causes of Waste, by R. H. Williams; Ventilation, by W. Teague, jun.; Stamping Machinery, by W. Husband; Improved Method of Dressing Tin Ore, by W. Teague, jun.; Perpendicular Shafts, by W. T. White; Importance of Drawing in Deep Mines, by C. F. Bishop; Smoke in Relation to the Health of Miners, by R. S. Hudson; and on Underground Temperature, by Josiah Thomas. There are also the report of the Council and balance-sheet. The Institute may be congratulated upon its liberality in publishing their Proceedings at a cheap rate, so as to give non-members the advantage of

their labours and researches, and it is to be hoped that the sale of them will add to the society's resources, and thus enable it to extend even more widely its useful exertions.

SCOTCH PIG-IRON WARRANT MARKET.

Mr. W. WILSON (Glasgow, Aug. 9) writes:—"The market has shown firmness during the past week, but outside operators still buy sparingly, nor is it likely that the public will take much interest in warrants while the price keeps under 50s. Speculation, which has usually taken the initiative in upward movements of the price, is now unwilling to anticipate anything. Shipments again compare favourably. The number of furnaces blowing remains at 115. The stock in store remains almost stationary. The balance out here on the week is 66 tons, and at Middlesbrough there is an increase of 7 tons. Business was done during the past week at the following prompt cash prices:—

Thursday, Aug. 2.	Friday, Aug. 3.	Saturday, Aug. 4.
47/6, 47/5, 47/7, 47/8 1/2	47/7, 47/8, 47/8 1/2	No market.
Tuesday, Aug. 7.	Wednesday, Aug. 8.	Thursday, Aug. 9.
47/8 1/2, 47/4, 47/4 1/2, 47/4	47/3, 47/1, 1883.	47/1, 47/2, 47/1
Price of Scotch Warrants on Aug. 7	1883.	1881.
Furnaces in blast in Scotland do.	115	110
Iron in store at this date.	581,492	632,465
Shipments of Scotch pig-iron for week ending Aug. 4	13,722	13,579
Do. since beginning of year	381,203	379,094
Price of Middlesbrough No. 3, Aug. 7	33/	36/9
Furnaces in blast Middlesbrough dist.	117	120
Middlesbrough Iron Imported at Grangemouth, week ending Aug. 4	4,630	3,825
Do. do. since beginning of year	159,324	132,065

THE CONSETT IRON COMPANY.

The Consett Iron Company have issued their report for the past year. The following table, prepared by Mr. S. N. Challoner, Grey-street, Newcastle, shows the dividends, prices, &c., of the company's shares for the past 10 years:—

Profits year ending June 30.	Dividends per Share.	Unpaid Profits.	Price July 7.	Price Aug. 7.
1874 ... £304,127	40s. 0d.	50s. 0d.	£6,203	17 1/2 pm.
1875 ... 215,101	20 0	40 0	18,174	17 1/2 pm.
1876 ... 86,257	7 6	15 0	24,548	11 1/2 pm.
1877 ... 83,288	7 6	15 0	31,642	11 pm.
1878 ... 67,996	5 0	13 9	32,999	10 1/2 pm.
1879 ... 55,995	5 0	10 0	36,070	8 1/2 pm.
1880 ... 104,497	7 6	22 6	43,316	16 pm.
1881 ... 195,070	15 0	25 0	25,095	18 pm.
1882 ... 128,494	12 6	17 6	16,740	19 1/2 pm.
1883 ... 130,218	12 6	15 0	16,365	16 1/2 pm.

* And bonus shares 2s. 10s. per share, making with the dividend 3s. 12s. 6d. per share for the half-year. From 1874 to 1880 there was a reserve fund of 100,000*l.*, which, together with 38,000*l.* taken from undivided profits, was in 1880 given to the shareholders in the proportion of one share for every three shares held. The bonus shares being worth about 15 premium, the bonus was really equal to 7*l.* 10s. instead of only 2*l.* 10s.

QUICKSILVER.

TO THE 31ST OF JULY, 1883, INCLUSIVE.

Seasons import, entries, bottles,	1882.	1883.
Imports from Jan. 1 to July 31, bottles	46,990	52,363
Exports	21,444	29,923
Imports for July	492	18,265
Exports	2,808	3,718
Price per bottle, about	£5 17 6	£5 12 6

Stock in London to July 31, 1883, roughly calculated, is about 102,500 bottles.—London, Aug. 9. J. BENNETT BROS.

THE COPPER TRADE.—The following are the Customs Returns of Copper for the past month, also for the first seven months of the year, reduced to a common denominator, and compared with the same figures in 1882:—

	1883.	1882.
Copper, in pyrites	1195	1372
Ditto, in ore	1570	2526
Ditto, in regulus	510	1088
Ditto, in precipitate	1637	1509
Foreign raw copper	2950	3111
Total tons	7862	9606
Value of above	£463,810	£565,453
IMPORTS, JANUARY 1 TO JULY 31.		
Copper of all descriptions	56,435	52,184
Value of above	£3,393,542	£3,257,139

STEEL COMPANY OF SCOTLAND.—The directors, at their meeting on Wednesday, agreed to recommend the payment of a dividend at the rate of 12 per cent. per annum for the year ended July 12, 1883, after writing off for depreciation 17,000*l.*, adding to reserve fund 5000*l.*, and carrying forward to next year 3300*l.* The dividend last year was at the rate of 7 per cent.

MANUFACTURE OF MILD STEEL.—Some improvements in the manufacture of plates, sheets, angle, and of all other sections of bar-iron and of forgings made from ingot iron or steel produced by the Bessemer, Siemens-Marten, basic, or other new processes now in operation which are designed to produce a more reliable material than is obtained by the method now in use of casting the material into large ingots of great thickness, which, in cooling down, often develop fractures internally and externally; and as such ingots are never again raised internally to a welding heat, such fractures always remain a secret defect in the article manufactured, have been invented by Mr. WM. PROSSER, of Newcastle-on-Tyne. He casts the steel or iron from the converting vessel or ladle into comparatively broad and thin sheets or slabs (say) of 1 inch or any other convenient thickness, the steel or iron having already been tested to ensure its being sufficiently free from carbon and other foreign ingredients as to make it of a weldable quality. These sheets or slabs are, when cooled sufficiently to remove, taken to suitable shears or other machinery and cut into convenient strips both in width and length for "piling," and are then treated as bar-iron or steel produced by the puddling process. If it is desired to make ship or boiler plates the slabs are cut from 12 to 24 inches wide, and suitable lengths "piled" one upon another to produce the required weight of "pile." If sheet or bar iron is wanted, then the slabs are divided into narrower strips, as may be required.

GAS-ELECTRIC LAMPS.—The lamp, according to the invention of Mr. J. H. LODGE, of Brussels, is formed in a manner somewhat analogous to that of a Bunsen burner, in the flame of which are two or more carbon rods through which the electric current passes. The gas is led into a mixing chamber, into which air is also led. The gas pipe is surrounded by a moveable cylinder of non-conducting material, capable of being moved up and down, and to and through said cylinder pass metallic threads or wires, the lower extremities of which are in connection with the dynamo, or other electrical source of supply, while the upper ends are in contact with conducting springs which bear upon the carbon holder arms, or the wires may be connected directly with the arms. The springs also serving to keep the carbon points approximately together. For the purpose of regulating the carbons a ring of non-conducting material may be employed in conjunction with the carbon holder arms and the screw cylinder. To regulate the gas flame an exhaust or regulating chamber is employed into the opening, at the base of which a portion of the flame passes, as well as the products of combustion. From this chamber a pipe leads out of the lamp, and surrounding said pipe is a second or larger pipe leading into the top of the lamp for the purpose of supplying air thereto; the base of the outer pipe may be supplied with gauze or wire netting to prevent any sudden inrush

of air. Below the exhaust chamber a reflector may be placed. When the lamp is employed in rooms the arrangements may be simplified by omitting the exhaust chamber, and substituting therefor a plate of metal, glass, or porcelain, provided with an opening through which the flame will pass slightly, a species of balloon above being also employed, the motion of which may be employed for regulating the access of air.

THE DOLCOATH FRAUD—THE FICTITIOUS SHARES.

The proceedings at the special meeting of adventurers on Monday were certainly not calculated to increase the confidence of capitalists either in Dolcoath or any other Cost-book mine shares, as no resolution was passed formally recognising the whole 4499 shares in circulation as valid, nor was any conclusion arrived at as to whether the neglect of the committee should be regarded as culpable to an extent to justify legal proceedings for recovering the loss, or whether the matter should be passed over by compromise or condonation. In a case like the present mere money loss is relatively unimportant as compared with maintaining the status of the shares as a market security; and as it is admitted that the holders of the new shares created by Mayne hold a precisely similar certificate of title to that possessed in respect of the original shares, and that the whole 2499 shares are properly entered in the company's books, it is obvious that any attempt to disturb any present holder would result in interminable litigation, from which every adventurer would suffer. The Chairman of Monday's meeting (Mr. H. W. Williams) stated that at the previous meeting the accountant had only traced 164 shares, but he had since traced the whole. At the request of the meeting the Chairman read the document, which showed the manner in which the prisoner made the defalcations. It was explained that Mayne placed no less than 192 of the shares to the account of local brokers. In concluding his report, Mr. Trythall suggested, for the avoidance of all possibility of fraud, that a register of transfers be kept in the form he had prepared; that the transfers be recorded in it as received; that all transfers be posted in the share ledger when the certificate was issued, and examined by some other person than the party who entered them. He added that, under all circumstances, certificates should be issued with the transfers, and the share ledger examined before the meeting. The auditor had not hitherto considered it his duty to check the share ledger and the cost-book; but he suggested that in future he be instructed to do so. He would also suggest that all mine officials be prohibited from dealing in shares.

The explanation of Capt. Thomas does not at all tend to relieve himself and the other members of the committee of the blame for gross neglect with which they have been charged; but his statement may suffice to entitle them to the benefit of "extenuating circumstances," and it would probably be to the advantage of all concerned if the matter be settled at once, although some may consider the "extenuating circumstances" no better than those urged in a French court on behalf of a parricide—that he was a poor orphan. Capt. Thomas explained that when Mr. Trythall, the special accountant, was called in the cash accounts were placed in his hands for examination. These, Capt. Thomas was glad to say, were all right; every payment, every receipt, passed through himself. Mr. Trythall soon ascertained that instead of Dolcoath being in 4296 shares it was in 4499. He knew that for that circumstance he (Capt. Thomas), the committee, and all the agents were greatly blamed. Instead of blaming Mayne for his fraudulent transactions, many unreasonable people had taken the opportunity of blaming the officials of the mine for the roguery Mayne committed. That was not very kind, it was not very fair. Mayne was not his clerk; he was not the committee's clerk. He was appointed by the adventurers, like all the rest of the agents of the mine. It was quite true they all had confidence in Mayne. He should not have been afraid to have trusted the whole of his property with him. Many a time Mayne had given him a handful of transfers in the morning, saying he had received them the night before.

Sometime since Mayne wrote to Capt. Thomas expressing in abject terms his sorrow at having defrauded the mine of some 120*l.* five years before. Really, however, it was a ruse of Mayne to throw the management off the scent of the defalcations. That was, he therein stated, the only fraud he had committed before, or since, and he asked forgiveness, for, unless Captain Thomas granted it, he could not expect to be forgiven by his Maker. Proceeding, Captain Thomas said he was never more surprised in his life than he was upon receiving the letter, which he need not have produced. When Mayne informed him, crying bitterly, and apparently penitent, of this alleged fraud, giving him a cheque which, he said, covered the defalcation, with 5 per cent. interest, he showed the letter to Mr. Pike, who agreed with him that it would be a hard thing to expose Mayne. He would rather have paid the money out of his own pocket than have exposed the man. He believed no one else would have acted differently. Then it was asserted that since that time Mayne created 100 additional shares. That was not true. He created five, with the proceeds of which he purchased five East Pools on his own showing, and that money he handed him. They had since lost 60*l.*, and if they thought he had been too lenient with the prisoner he would pay the money personally.

Such an explanation is, so far as Capt. Thomas is concerned, manly and straightforward, and he further stated that Mayne had not transacted a shilling's worth of business for him in his life. He justly complained of having been taunted that Mayne was his cousin, and not unnaturally asked—"How can I help it?" Then, continuing, he repudiated the assertion that he had appointed relations in the mine. But, though he had the opportunity, he had not done so. There was not, among the agents or foremen, a single relative of his. Mr. Pike had been blamed as the auditor. But he would point out that up to the end of 1881 Mr. Tregoning was also auditor, and even then two-thirds of the fictitious shares had been created. All this shows that there are complications in the case which, apart from all consideration of Capt. Thomas or the committee, should be at once settled, and this can readily be done. Capt. Thomas disclaimed any idea that he had neglected his duty. The only thing he had not done was to make up the dividend and share list, and that he did not consider his duty. If they would allow him to appoint a clerk of his own he would be personally responsible in future. He further remarked that during the past 15 years the mine had paid 280,000*l.* in dividends, nearly equal to the 70 years previously. The mine was in a better position than in any other period of her history. Some persons did not expect him to go out of the mine for an hour, and even to do all the clerkship of the mine. The Chairman suggested the appointment of the gentlemen to act on the lease committee, and Messrs. W. H. Williams, T. Bolitho, and Husband, and Capt. Andrews were selected.

With regard to the future the Chairman suggested that a special meeting be held to consider the question of the shares created by Mayne, and Capt. Thomas mentioned that the 25,000*l.* was due to Mr. Basset on August 16. They had received communications from Tebby to the effect that there was no objection to receiving a part of the money on the date specified, and that on the remainder till paid 5 per cent. interest be charged. (Hisses.) Mr. Branwell: You will advert to that at the next meeting. The Chairman observed that they could not sell the shares they agreed upon selling till Mayne's fictitious shares had been disposed of. Mayne's shares were undoubtedly the property of the mine. Capt. Thomas said that if the 200 extra shares were sold, and the dividend next month allowed to lapse, they would, he thought, be in a fair way to pay off the 25,000*l.* They would soon be making increased returns; the mine looked better than ever. They had better pay Mr. Basset, for they had their money of the bankers at 4 per cent. interest. The accuracy of the Chairman's statement as to the shares created by Mayne being the property of the mine is more than questionable, and if any attempt be made to deprive bona fide purchasers of those shares of their interest in the mine it would probably go far to annihilate Cornish mining, because capitalists will be taught that no reliance can be placed in the Cornish system, and that Cornish mine shares are most dangerous to touch.

By far the better course would be to formally recognise the shares by passing a resolution to the effect:—"That the number of shares in the mine be, and is, hereby increased to 5000, and that the 904 new shares now created be thus appropriated—that is to say, that

203 shares be written off in correction of the share ledger; that 451 shares be sold on behalf of the adventurers by the committee at such prices and times as they in their discretion shall think fit in order to provide the 25,000l. fine exacted by Mr. Basset, and that the remaining 250 shares be retained by the company, and disposed of as opportunity offers, the amounts realised being applied to form a reserve fund to enable the committee to conduct the mine on the ready-money principle, and avoid all bankers and similar charges for financial accommodation." It will be seen that the adventurers generally derive equal advantage from the money raised from the 451 shares sold for Basset's fine, and from the 250 applied to create the reserve fund; so that the real question is the effect of the addition of 203 shares to the 4096 which originally existed. Now, 203 to 4096 is about $\frac{1}{20}$ per cent; or, to put it roughly in round numbers and money, if the 4096th share be worth 67l. 10s., the 4299th share would be worth 65l. Hence there would be an apparent loss to the holders of original shares of 2l. 10s. per share, supposing they wished to sell; but, in fact, this loss would not accrue, because the removal of all doubt from the minds of capitalists as to the validity of the shares in circulation would favourably affect the market more than to that extent. The present value of the 5000th share at present market rates for the mine would be about 55l., so that the 451 shares would yield at least 24,805l. towards the Basset fine, although, considering the vastly strengthened financial position in which the mine would be, there would, probably, be a good balance beyond the 25,000l. to form the nucleus of the reserve fund. The great object of the original shareholders should be to avoid recrimination and the discussion of legal rights, and to remove the doubt which now adversely affects the market through the question of the validity of certain shares having been raised, and this suggestion certainly seems to be one of the readiest ways out of the difficulty.

SOUTH PHOENIX AND CARADON MINE.

The parish of Linkinhorne has long been regarded as one of the best mineral-producing districts in Cornwall. It embraces the famous South Caradon Mine, which upon an expenditure of only 640l. produced ore to the value of 1,650,000l. The shares of this mine used to move by "leaps and bounds." We remember some four years ago, before it was constituted on its present basis, that the shares in three days rose 60l. each. This shows the possibilities of mines in the Linkinhorne district, and it also offers to investors the inducement to employ their money in the immediate neighbourhood from which these riches sprang. What influence, it may be asked, has the riches of South Caradon upon South Phoenix Mine and Caradon Mine? Simply this. The South Caradon and West Caradon great cross-courses traverse the sett. These have been found to have beneficially influenced the lodes in South Caradon, West Caradon, and Phoenix United Mines. The principal lodes passing through the property are known as Grace Dieu, Green Hills, Marke Valley Copper, and the Wheal Jenkins lode. On Grace Dieu lode a shaft has been sunk to the 65, where the lode is large and strong.

Now, it is the intention of the company to deepen the shaft here, and they are well advised to do so, for the lode has above been productive in every level. Wheal Jenkins lode is regarded as the "champion" of the district. The reports of the various mining experts who have been called in indicate an intelligent line of operations, and this will be pursued with every economy and diligence. The mine is taken over as a going concern, well equipped with machinery and plant. Under all the circumstances, the moderation of the vendors is conspicuous. They positively ask for no cash—only shares. The capital of the company is 30,000l., in as many shares of 1l. each, and of these the vendors receive one-half. There will thus be left a working capital of 15,000l.; but it is expected that 5000l. will bring the company into a dividend paying position. The directors are gentlemen of influence and position, who are not likely to have committed themselves to this enterprise without previous enquiry and examination. The reports of the experts and the prospectus is considered to justify any person seeking an eligible investment in joining a company like this, which certainly presents good prospects of success.

THE WAVE PLATE AMALGAMATOR.

Some few months since an interesting discussion took place in the *Mining Journal* with regard to the flouing of the mercury in the amalgamation process, and the relative claims of Messrs. Crookes and Hleadwin to the sodium process, in the course of which Mr. Henry Moon, M.E., of Leicester, remarked that his experience in this matter "points to only one cause of the quicksilver flouing, and that is grinding it with quartz, or producing the same effect either by stamping it in the boxes, or too violent action in the amalgamating box or cradle. With quicksilver as pure as it could be made by distillation I have secured gold that was so fine that it could be squeezed through a wash-leather with quicksilver, although the stone that had been crushed and from which the gold was extracted contained copper, lead in which was a portion of silver, sulphur, blende, and pyrites, not one of these metals interfering in the slightest degree with the action of the amalgamating process between the gold and quicksilver, as used in my simple amalgamator. I believe, however, if the ore had been roasted before being crushed the effect might have been different, and for this reason I prefer to crush the ore as found."

Few events in the history of the world, writes Mr. Moon, had such effects in promoting the prosperity of mankind, particularly the English-speaking races, as the discovery of gold in California, in 1848, and in the then Port Philip district of New South Wales, Australia, in 1850. The said district shortly afterwards being formed into the Colony of Victoria, has probably yielded more of the precious metal than any other country of the same limited area. In the earlier days of these discoveries gold was found in the alluvial ground, hence the terms "diggings" and "diggers." It was not till some few years after the first discovery that any efforts were made to find it in its matrix and probable source—quartz rock. Like the first discovery, the second was accidental, and for a time was only followed by those who had either been fortunate as diggers, or who brought money with them on which to subsist till they should be able to obtain the riches from the reef or lode—for the mining for gold needed a much larger expenditure for tools than the simple pick, shovel, and cradle of the digger.

With the opening up of these quartz reefs it was necessary to have the means of crushing the rock, and then the amalgamating processes for saving the gold therefrom. The first of these crushers attempted to crush and amalgamate at one operation, and the form of the old Chilean Mill or edge runners was the most common. The inventions for separating the gold from its matrix have been almost innumerable; but ultimately the old Cornish stamps, with square shanks of wood, with a cast-iron shoe or crusher—were introduced into Victoria, in 1855; but in 1858 the modern rotating stamp was first invented and used—they are frequently termed round, or California stamps, but they originated in Victoria in the year named.

The crushing being completed the next process is the amalgamation with quicksilver, so that all, or as nearly as possible all, the gold shall be secured. Very few things have had a greater variety of methods tried than that of separating the gold from the tailings or crushed quartz—as it often happened that the quantity of gold was not expected to exceed 1 oz., or even $\frac{1}{2}$ oz. to the ton of stone, of course all chemical appliances save the use of quicksilver had to be discarded. The plans tried have been as various as their inventors have been sanguine. In Jan., 1856, Mr. Moon first turned his attention to this subject, and being engaged in a crushing mill, had many opportunities of experimenting. His first idea was that there should be no grinding or rubbing, and that if possible all the ingredients should have perfect freedom of action, believing that if it was possible to introduce the gold into the middle of the quicksilver, the affinity between them would prevent them ever being separated except in the retort.

The well-known tendency of quicksilver, like water, to find the lowest level, suggested an incline plane as the bottom of the amalgamator, and the fluidity of it gave the hope that if the end of the bottom was curved and motion given to the amalgamator at the end,

it would be caused to run up this curve and present a broad thin surface through which the gold, crushed quartz and water could be made to enter. The gold being thus introduced into the middle of the quicksilver, they would not separate, and the water would be free by the action of the amalgamator to wash the crushed quartz away. In the wave plate amalgamator this wave of quicksilver is accomplished to the extent of 6 in. wide by 21 in. long. If the bottom had been continued beyond 3 ft., the water would have been so deep at the curve, that the quicksilver would never have been above its surface, and the finest gold would have been prevented by the flow of water from ever coming in contact with the quicksilver. To prevent this, a second curve, but smaller than the other, was introduced, and a second bottom on a parallel line to the first continued towards the delivery end near which the bottom was inclined downwards, and the water and stone discharged therefrom.

Simple as the wave plate amalgamator is, it is hardly possible to convey any idea of the numberless experiments that had to be made before the right inclination of the bottom, and the proper curve for the play of quicksilver were reached. For crushed quartz of the ordinary specific gravity the amalgamator was now perfect, and as long as the motion given by an eccentric at the back end was continued, and the crushed ore and water supplied it required absolutely no attendance. But when Mr. Moon was fixing one at the Guadalupe Gold and Silver Mines, near La Nava de Jadraque, about 75 miles from Madrid, in Spain, in October, 1882, he found tailings of such great specific gravity, and with such a tendency to pack even under water that the greatest pressure that could be given by the thumb had no effect in altering the surface. To overcome this difficulty he invented and applied, with complete success, a frame of rakes with triangle-shaped teeth, which entered by their sharp edge into the crushed ore, and by the action of an eccentric that moved the frame within the amalgamator, and as near to its bottom as possible so as not to touch it, the flat part of the teeth pushed the tailings towards the delivery end of the bottom, and all packing prevented.

The amalgamator is suspended from a frame overhead by four iron rods that hang from long screw-hooks through the frame, the object of such hooks being that of raising or lowering the amalgamator to a perfect level on its edge, and across its bottom. The clearer frame of rakes is suspended from the same frame, and is adjusted by the same means. As the suspending rods are placed about 2 ft. wider at the frame than the width of the amalgamator a perfectly straight and parallel motion is obtained without guides of any kind. The amalgamator is moved endways by an eccentric placed on a shaft at the framing that carries the shoot down which the crushed ore, gold, and water flows. The clearer frame of rakes is moved by an eccentric on a shaft at the uprights that carry the framing from which the amalgamator and clearer are suspended. The speed of the amalgamator is from 75 to 80 times in a minute, and the clearer from 140 to 150 in the same time—the former having a movement of 3 in., the latter not exceeding 2 $\frac{1}{2}$ in.

In the amalgamation of gold the only metals used should be those that have no affinity for quicksilver for the baser metals lead, zinc, and tin are entirely dissolved and incorporated with itself by quicksilver, copper partially so. Under these circumstances the writer cannot understand the frequent use of copper plates coated with quicksilver as a means of saving gold. To be effective the copper must be incorporated with the quicksilver on it, and the thinness of the coating of quicksilver must present but a very feeble attraction for the gold washed over its surface, especially when the washing process of water and crushed quartz is taken into account. But supposing all the gold coming in contact with it is caught, it follows that in cleaning the copper plate so as to secure the gold a small portion of the copper is taken with the amalgam, and so three metals are found together (gold, copper, and quicksilver) when it is desirable there should only be two, gold and quicksilver, which can be separated in the retort, the product being a marketable sample of gold. Mr. Moon, therefore, never uses any material that has the least affinity for quicksilver, iron and wood being alone employed, and by this simple amalgamator he has caught gold so fine that he has squeezed it through a wash-leather, in the separation of the gold and quicksilver before putting the amalgam in the retort.

SUBSTITUTION OF CAST-STEEL FOR FORGINGS.

Considerable difficulty has usually been experienced in making steel castings free from blow-holes or air-bubbles each one of which represents a separate point of weakness in the casting; Mr. C. M. FIELSTICKER, of Kibburn, has, therefore, given his attention to the production of dense steel castings, so that cast-steel may be used where forgings of steel or of iron, or cast-iron have hitherto been employed. He proposes to use a vessel, preferably of cylindrical form, of sufficient capacity to hold the contents of a Bessemer converter, and he proposes to make the diameter from one-third to one-half that of its height. This vessel may be made of fire-brick or of any suitable refractory material capable of withstanding the elevated temperature of molten steel, and is to be placed convenient to the converter so that the latter may be emptied directly into the said vessel, or it may be filled by means of a casting ladle. The vessel may be heated from the outside by being built into a furnace, or by means of a forced gas blast, which latter may be temporarily introduced at the top hole near to its bottom, as will be mentioned hereafter. Inside of the vessel all around its circumference and say about three-quarters of its height he forms a projection upon which rests an interchangeable bottom, fitting closely to the sides of the vessel, which bottom he also proposes to make of a highly refractory material, say, of 2 inches or more in thickness and furnished with numerous perforations, say of 1-16th to $\frac{1}{4}$ th of 1 in. in diameter and slightly wider at the top than at the bottom.

A second or several similar such perforated bottoms may be placed in a similar manner underneath the first bottom, having a space of one or more inches between each of them, but in such a manner that the perforations of the different bottoms do not form one continuous line. Immediately underneath the lowest bottom is placed a vent-hole, which may be closed with a loosely fitting plug of a refractory material, acting as a valve, capable of opening towards the outside, and permitting the escape of gases from the inside of the vessel, while preventing the entrance of atmospheric air. At the side of the vessel immediately above its actual or permanent bottom, is placed a tap-hole, which may serve for the admission of a forced gas blast at the beginning of an operation and for the outlet of melted steel at the finish of an operation.

In carrying out the process, the temperature is first of all brought to near that of the melted steel. The tap-hole at the bottom of the vessel is then securely closed. The melted steel is poured in at the top of the vessel and runs down in numerous thin streams through the perforations of the first bottom. On its arrival at the second and subsequent perforated bottoms, if any, it changes the surfaces of these numerous thin streams of the melted steel, thus presenting new surfaces, permitting the escape of the occluded gases. The melted steel finally collects at the permanent bottom of the vessel, from whence it may be drawn off as required. The gases occluded in the melted steel pass out at the vent-hole placed underneath the lowest perforated bottom. The action which takes place inside the vessel will be readily understood. The molten steel being forced by its own gravity through small holes of a certain length in the first perforated bottom, the gases occluded in the molten steel are to a certain degree compressed, and assume a greater elasticity on their passage through these perforations. As soon as the molten steel arrives at a very thin stream at the open space underneath the first perforated bottom, the gases by reason of their compression and consequent greater elasticity have a chance of passing through the thin stream of molten steel and of escaping. The molten steel on arriving at the second perforated bottom is obliged to change its surface, and passes again through a number of perforations, and what gases may be still occluded have again a chance of escaping. The friction caused by the passage of the molten steel through the perforations at the same time assisting the elimination of the gases. Finally, the molten steel arrives in the large space over the permanent bottom of the vessel thoroughly desiccated, and, therefore, free from any gases, which if not permitted to escape cause on cooling the objectionable air bubble or blow-holes in steel castings. If de-

sired, an opening may be made close to the vent-hole, for the admission of a blast of a highly heated non-oxidising gas under pressure, which would meet the molten steel on its final passage through the lowest perforated bottom, and so assist in the desiccation of the molten steel and the escape of the occluded gases. As the entire operation takes place in a neutral atmosphere, no oxidation of the metal can take place.

COMBINED EQUILIBRIUM AND STOP VALVE.

An improved arrangement of combined equilibrium and stop valve, the object of which is to maintain the most perfect equilibrium and to prevent the stop valve from becoming leaky and defective has been invented by Messrs. GIBBONS and ROBINSON, of Wantage. The arrangement is said to be both simple and effective. The stop valve and equilibrium valve are made in one cylindrical box casting—hereafter termed the valve box—and which box has a screw thread formed thereon to allow of its being screwed into the partition which separates the steam chest from the slide valve chest. In that part of the valve box which projects into the valve chest numerous small ports are cut, which ports are opened and closed by means of a loose collar—hereafter termed the regulator—fitted over this part of the valve box and having a corresponding number of ports cut therein. A circular reciprocating motion is imparted to such regulator by means of bevil teeth cast thereon which taking into the segment of a bevil pinion attached to or formed on the equilibrium valve spindle move the regulator to and fro just conveniently to open and shut the ports in the valve box; a suitable stop being sufficiently fitted in the latter in order to control the motion of the regulator. Such regulator is kept in position by a covering plate, which is secured by a screw plug, which also forms a support for the equilibrium valve spindle. The other portion of the valve box, which projects into the steam chest forms the valve seat of the stop valve, and has two ports cut therein; a stop valve having two corresponding ports cut therein is fitted over such valve seat in such a manner that when the engine is at work the entire surface of the valve seat is covered by the stop valve, and is so effectually protected from any dirt lodging thereon and injuring the valve surface, which is so frequently the cause of leaky stop valves.

A reciprocating motion is imparted to such a stop valve by a rod screwed to a bar fitting between horns projecting from the top of the valve which rod passes through a stuffing box in the steam chest to the outside of the cylinder, and is moved by a lever and joint in the ordinary way. One of the principal advantages of our invention is that owing to its improved construction and arrangement the equilibrium valve not only possesses the most perfect and delicate sensibility, but can be manipulated with the greatest facility and certainty, whilst constant and effective lubrication is secured. Another advantage is that while possessing increased lasting and wearing powers it can be repaired or cleaned far more quickly and easily than any valves in present use.

GALVANIC TREATMENT OF COPPER AND SILVER ORES.

Experiments are being made in Japan with a view to the introduction of the use of the galvanic process of treating silver ores. The solution of chloride of silver in salt (chloride of sodium), obtained by the Augustin process, has been treated thus. A great difficulty experienced has been to find a proper material for the electrodes. Platinum is excellent, but costs too much, with a bath 100 centimetres deep, and with a sectional area of 100 centimetres of the copper conductors, the requisite amount of platinum being at least 70 kilogrammes. Gold, silver, quicksilver, and all base metals being dissolved by the chlorine, set free by the decomposition of the chloride of silver, cannot be used. Advantage has been taken of this dissolving power of the chlorine, set free after many trials, in the following way, but only on a small scale thus far.

Two Becker glasses are partly filled with a salt solution of chloride of silver, and connected by a tube, whose ends are bound by linen cloth to prevent the entrance of any solid substances. Two electrodes of platinum wire are introduced into the glasses. The decomposition of the dissolved chloride commences, and the chlorine set free attacks the copper (for instance) pyrites. There are formed of hydrochloric acid, chloride of copper, perchloride of iron, and also sulphate of copper and sulphate of iron, these last sulphates being changed by the chloride of sodium, so long as this is present, to chloride of copper, perchloride of iron, and sulphate of soda. The necessary supply of chloride of sodium (which is constantly being decomposed) is effected by allowing fresh salt solution to drop constantly from a vessel. Thus there is maintained a flow of the solution, when the excess, holding principally sulphate of soda, is drawn off by a syphon.

The chlorides which go into solution are being constantly decomposed—copper, iron, silver, &c., are precipitated on the bottom in slightly coherent masses, while the chloride attacks anew fresh bodies of ore. The process continues without interruption until all the ore is decomposed, and all the metal precipitated.

The process has been used successfully only in the laboratory, but trials are being made with a view to its introduction on a large scale. Where power is cheap it promises to be valuable, especially for ore rich in lime, which has been very difficult to treat successfully by other methods.

—Berg- und Hüttenmännische Zeitung.

SILICIOUS BRONZE MANUFACTURE.

For some time past considerable attention has been given to the manufacture of bronzes by Mr. Lazare Weiller, of Angoulême, France, and he has recently invented some further improvements in the manufacture of silicious copper and silicious bronze, with the object of producing an alloy particularly suited for making electric conducting and other wires, parts of machinery, and so on. Mr. Weiller's invention of April, 1882, has been found to give excellent results; but he now proposes to substitute in certain cases for the materials for producing the sodium necessary during the operation an amount of pure sodium combined with tin when it is required to make silicious bronze, with copper when it is required to make silicious copper, or even directly with bronze in special cases. In this way there can be obtained on a commercial scale as much as 12 per cent. of silicon in an alloy by causing one part of sodium combined with tin, copper, or bronze to act upon four parts of fluosilicate of potass introduced directly into the alloy. In the new process of making silicious bronze a previous combination of tin with sodium is made, and this combination he calls "sodium-tin," and when he wishes to add copper he mixes sodium-tin therewith, and the compound thus formed he calls "sodium-bronze." The present invention thus comprises the manufacture of these compounds for the purpose of subsequently forming a combination of silicon with them or one of them in the presence of, or by means of fluosilicate of potass when melted with copper or bronze to form the required silicious alloys. The compound sodium-tin is made by first melting the tin in a crucible and stirring the molten metal while the sodium is very gradually added thereto; the compound thus made may then be allowed to cool, and may be kept for use as required. In order to make sodium-bronze he adds to melted copper the desired proportion of sodium-tin.

Instead of forming these compounds previously, the process of manufacturing silicious bronze may be modified by making a direct mixture of the metals which would form the silicious bronze; tin and sodium, with the desired amount of fluosilicate of potass, would then be introduced into the melted copper or bronze; or, if the bronze already contained sufficient tin, only the sodium and fluosilicate would be introduced. In like manner, if it is desired to make silicious copper, the sodium is introduced with fluosilicate of potass into the melted copper. In all cases where sodium is used, uncombined with tin, it must be introduced very gradually into the melted metal. The fluosilicate should be introduced first, then the sodium, and lastly the tin, when this is to be added.

When a larger amount of sodium is required than can be conveniently combined with the tin to be employed in the alloy, sodium in an uncombined state can be used in conjunction with the sodium-

tin or sodium-bronze, the sodium and the sodium-tin or sodium-bronze being introduced with fluosilicate of potash into the melted copper or bronze. The new process is therefore complementary to the process described in his former specification. It enables him to obtain not only wires adapted for use, in connection with telegraphs, telephones, and the conduction of electricity generally, but wire for other purposes, and also to manufacture machinery or parts of machinery and guns which will offer great resistance to friction, blows, strains, and other molecular disturbance.

For the manufacture of his sodium-tin he generally employs from 5 to 30 parts of sodium to 100 parts of tin; for the manufacture of sodium-bronze he generally uses an amount of sodium-tin which will give an amount of tin equal to about 0.10 to 15 per cent. of the copper. For the manufacture of silicious copper or silicious bronze the quantity of fluosilicate of potash which should be used to cause the combination of the silicon with the sodium is about 2½ to 4 times the weight of sodium employed, whether such sodium be introduced into the melted copper or bronze in a separate state or (for the manufacture of silicious bronze) it be combined with tin in the form which he calls sodium-tin, or with tin and copper in the form of sodium-bronze.

The materials thus added to the melted copper or bronze react in the midst of the mass during the fusion of the alloy, and by this process it is easy to get a considerable quantity of silicon alloyed or mixed with the metal. For the manufacture of silicious bronze the proportion of the tin may be considerably varied from (say) about 0.10 to 15 per cent. of the copper, and for the manufacture of silicious copper and bronze the proportion of silicon added thereto may be varied from (say) about 0.05 to 12 per cent. In order to obtain 12 per cent. of silicon in the alloy he employs about three parts of fluosilicate of potash to 10 parts of copper; a smaller quantity of the fluosilicate will give a proportionately smaller percentage of silicon in the alloy. The sodium compounds described, and which he calls sodium-tin and sodium-bronze, although specially intended for use in the manufacture of silicious bronze in the manner explained may also be used for other purposes.

OBTAINING ZINC AND COPPER FROM THEIR ORES.

The aqueous solutions of ammoniacal gas and of carbonate of ammonia have the property of dissolving oxides and carbonates of copper and zinc, and the latter are precipitated if the ammonia or the carbonate of ammonia are extracted from their solutions, it is upon the application of this property of ammonia that this method or process for the treatment of copper and zinc ores is based. The two ammoniacal solutions act in the same manner, but it is liquid ammonia—that is to say, ammonia in solution in water, that is referred to in the following description:—The ammonia only dissolves the oxides and carbonates of copper and zinc in the ores which naturally contain them, otherwise it is necessary to roast them completely several times with carbon in order to decompose the sulphates, antimonates, arseniates, and other matters which may be contained therein, and which will occasion a great loss in the treatment of the ores. The solution of ammonia of commerce at 20° Baumé, which contains about 500 times its volume of ammoniacal gas, dissolves such a quantity of oxide and carbonate that the proportion of metal dissolved is 0.13 of its weight, in practice it is necessary to employ 10 parts by weight of liquid ammonia of commerce to one part by weight of the metal contained in the ore in the form of the oxide or carbonate.

Two principal series of operations are comprised in the invention of Messrs. KRAFFT and SCHISCHKAR, of Paris, which they have recently patented in this country. First, the dissolving of the oxides or carbonates of zinc or copper in the ammoniacal liquid, the washing and separating of the gangues, and the filtration of the liquid containing the metal in solution. And, second, the precipitation of the dissolved oxides or carbonates by the expulsion of the ammoniacal gas from its solution, the washing and separation of the said oxides or carbonates, the filtration and cooling of the liquid still containing a certain quantity of ammonia, and finally the regeneration of the concentrated ammoniacal liquid designed to be employed in subsequent operations. In carrying out these two principal operations for the treatment of copper or zinc ores, they employ special apparatus, the arrangement of which varies according to whether the ammoniacal gas is driven from its solution by the action of heat alone, or by the action of a vacuum, the heat being applied only to prevent the temperature in the apparatus from falling below from 25° to 30°. When a vacuum is employed the arrangement which they prefer necessitates the use of a powerful air-pump. When heat alone is employed, the heat is furnished either by means of steam or by the direct application of heat from a furnace as hereinafter described.

It will be most convenient to describe successively the different arrangements above indicated, and corresponding with the two modes of extracting the ammoniacal gas contained in the solutions. In dissolving oxides or carbonates of zinc or copper in ammonia they employ the following arrangement, that is to say:—The ore, pulverised and passed through a No. 20 sieve, that is to say one of which the meshes are less than one millimetre, is brought in a wagon to the top of a mixer. A charged hopper is then opened by allowing the doors to fall, these doors are again closed by means of rods, and the contents of the wagon are emptied into the said hopper, and will serve for the succeeding operation and ensure the tightness of the closure. The said mixer is made of sheet metal and of cylindrical form, it contains a half helix or screw blade set in motion by means of a bevel wheel actuated by a motor; this screw is designed to agitate and constantly return the ore into the liquor.

After the introduction of the ore, the volume of ammonia corresponding with the weight of the ore is admitted by means of a cock situated at the upper part of the apparatus, the level of the liquid being easily ascertained by a gauge glass. The operation must be effected at the ambient temperature, any elevation of the temperature diminishing the quantity of ammoniacal gas dissolved, and causing a useless tension of the gas. In less than two hours, the dissolution of the oxide or carbonate contained in the ore is terminated; the agitator is then stopped and the liquid contained in the apparatus is allowed to settle for about 30 minutes, and is then successively drawn off by three cocks placed at different levels; the ammoniacal solution strongly agitated flows into a tank or reservoir by means of a pipe.

The sandy residues left in the mixer are still impregnated with ammonia containing metallic oxide in solution; a suitable volume of pure ammoniacal liquid is then introduced into the apparatus by the aforesaid cock, and the agitator is again set in motion. The liquid is then allowed to settle and drawn off as above described, combined with the liquid previously left in the apparatus. The sand or pulverulent gangue remains in the apparatus containing only nearly pure ammonia, which can be recovered; for this purpose a valve is opened and a certain quantity of water is admitted into the mixer by means of a cock, the agitator is then set in motion; all the sand, with a certain quantity of water, passes into a boiler arranged for this purpose a little below the lower level of the mixer. The said valve and cock are again closed, and another series of operations is commenced. The complete operation occupies two hours, or three at the most. In order to extract the ammonia contained in the sand and in the washing water in the said boiler, the latter is, by means of a pipe, placed in communication with a powerful air-pump, which effects on energetic exhaustion, and at the same time steam is introduced by means of a pipe; the ammoniacal gas exhausted is driven into chambers for regenerating the ammoniacal liquid.

The ammoniacal gas, under a low pressure, or in a partial vacuum, the temperature of the liquid being maintained at 25° or 30°, is almost entirely extracted in one hour. The exhaust valve is then closed, as well as the steam inlet, and a valve and cock are opened, and after removing a manhole on the boiler the interior of the same is cleansed of the sand which it contains. As above stated, the ammoniacal solution, charged with zinc in solution, which passes into the said tank or reservoir, is agitated it is again taken by a rotary pump and forced through a pressure filter in which the filtering

material is asbestos or wool compressed between two perforated plates, the apparatus being so arranged that these materials can be replaced with facility.

The lower conical part of the filter is furnished with a rotary shaft set in motion by means of a belt and pulley which moves a circular brush designed to constantly cleanse the lower perforated plate of the filter, and to detach therefrom the sediment, which falls to the bottom of the filter, where an agitator keeps it in suspension so that it can be extracted from time to time by means of a cock. This filtration would be needless for the cupreous solutions, and for the preparation of oxide of zinc, with a view to the manufacture of this metal; it is, on the contrary, indispensable if it is desired to apply the oxide of zinc obtained to the manufacture of colours. This operation would be itself insufficient for obtaining oxide of zinc absolutely pure with calamine. In this case it would be necessary to immerse plates of zinc for 24 hours in the filtered ammoniacal liquor which would precipitate the lead, cadmium, or other matters which might accompany the zinc in the solution. As above stated, the oxides or carbonates contained in zinc or copper ores can be dissolved without employing a vacuum. In this case they employ another arrangement of apparatus—that is to say, the mixing apparatus is formed of a cylinder of sheet metal terminated by semi-spherical portions and turning upon two hollow trunnions, one of which receives the driving pulley and the other a pipe passing through a stuffing box and connected to the pipes for supplying water, ammonia, and compressed air to the apparatus.

Towards the middle of the cylindrical wall of this mixer or receptacle is arranged a filter between two sheets of metal closed by a tight cover provided with a cock; on the opposite side of this receptacle is arranged laterally a manhole, which serves for charging the receptacle with ore. The operation is as follows:—The proper proportion of ammonia and of the ore to be treated being employed—that is to say, the ore is first introduced through the manhole, which is then hermetically closed; the requisite quantity of ammonia is then admitted by the said pipe and the apparatus is rotated. It is stopped after working for two hours, care being had to stop the apparatus, so that the said filter is at the under side, to this filter is then fitted a tube whose extremity is flexible, a cock is then opened to admit compressed air, under the action of which the filtered solution passes by the said tube into an alembic. Instead of operating by pressure they can effect the operation equally well by suction by previously creating a vacuum in the said alembic.

When the receptacle is emptied the cock is closed, the said tube is disconnected, and the washing is then proceeded with by admitting a certain quantity of ammonia and again rotating the said receptacle, it is stopped and the filtration effected as above described, two washings are thus effected with ammonia, then one or two with water so as not to leave any metal in the sediment. The sediment is emptied out through the man hole which is brought to the underside of the apparatus, into which is admitted a strong current of water, and which is kept in motion during this operation; the waste material extracted by the water flows into a channel arranged for this purpose below the said apparatus, and a fresh series of operations can be proceeded with.

In the precipitation of dissolved oxides or carbonates by the extraction of the ammoniacal gas contained in the solution when the operation is effected by means of a vacuum they adopt the following arrangement of the apparatus, that is to say, the filtered liquor is collected in a tank or vessel, and is taken therefrom by a pump, which delivers it into an evaporator. This evaporator, which is made of strong sheet metal, is provided in its interior with a helical agitator, set in motion by means of pinions in a similar manner to that in the aforesaid mixer; the evaporator also contains a serpentine heating coil or pipe into which steam is admitted at the upper end and passes out at the lower end condensed to return to the generator from which it is supplied; a water gauge glass permits of ascertaining the exact quantity of liquid introduced into the said evaporator.

The filtered ammoniacal liquid, containing the metallic oxide in solution, and maintained by means of the said coil at a temperature of about 25° or 30°, is then subjected to the action of an exhaust pump capable of producing in the said evaporator a partial vacuum; under these conditions in less than two hours the proportion of ammonia contained in the liquid can be reduced to 1-10th. It is needless to proceed further, because at this degree of concentration the liquor contains only traces of zinc, and because this liquor will serve to regenerate the concentrated ammoniacal liquid.

The metallic oxide, which is precipitated during the operation, accumulates of the bottom of the apparatus, and the liquid above can be drawn off successively by means of three cocks placed at different levels, which admit it to another tank by means of a pipe; the agitator is then set in motion, and a cock opened to admit into a filter the oxide or the carbonate in suspension in the water; another cock permitting, if necessary, the introduction of pure water to effect the withdrawal of the particles of oxide.

The bottom of the filter is formed of a perforated metal plate covered with wool or felt, upon which are collected the residues from both the operations to be dried and calcined. As above stated it is not necessary to employ a vacuum to extract the ammonia from its solution and effect the precipitation of the oxides or carbonates of zinc or copper; heat alone can be employed to obtain these results. In this case they employ for this purpose an arrangement in which the ammoniacal solution which passes into the alembic is heated by a furnace or other suitable means, and after some hours of ebullition nearly the whole of the ammonia escapes by a serpentine coil or pipe with the condensed water, and passes into reservoirs in which the ammoniacal liquid is regenerated to be employed in subsequent operations.

When it is judged that the whole of the ammonia has been extracted by distillation an outlet cock is opened, and the agitator is set in motion so as to detach the deposit, which then flows with the hot water into a filter similar to that described. The liquid, still slightly ammoniacal, passes into a refrigerator having compartments in which a current of cold water circulates for the purpose of lowering the temperature before the liquid passes into the said tanks or reservoirs, where the ammoniacal liquid is regenerated. It is important to utilise the said slightly ammoniacal liquid in order to avoid a sensible loss of this alkali.

The improved process above described can be applied to the separation of the copper and zinc contained in complex ores, either for the purpose of utilising these two metals only, or in order to isolate them from other metals which must be extracted separately; thus, for example, in treating calamine containing lead, in the manner above described, carbonate of lead is formed in the residues unattacked, and a single washing frees it from gangue. The construction and arrangement of the different parts of the apparatus can of course be varied or modified without materially changing the whole arrangement of carrying the invention into practice.

MINING IN THE SOUTH-EASTERN STATES OF AMERICA.

SIR,—At the close of my letter of July 17, I mentioned the desirability of establishing smelting-works in this neighbourhood. Since that letter was posted, I have seen in the local papers that there is a talk of this being carried out by some northern capitalists; but, so far as I can learn, I think the wish (of those here) "is father to the thought" of these northern men. I have discussed this subject with many, and there seems to be but one opinion—that it would be a very good and profitable thing for all parties. The sleepers for the railway running past here are supplied by small farmers, residing within a radius of from three to ten miles; the sizes are—length, 8 ft.; thickness, 8 in.; width, 12 in.; yet for these, of oak, the price paid is only one shilling English when delivered at the station here. A horse can only haul five at one load, some only four, so that, as the loads are only brought every other day, and sometimes less frequently, the wages earned for man and horse vary from 2s. to 2s. 7d. per day. From the numberless outcrops of copper and other metals, from which large quantities of surface ores could be got with little more trouble than carting away, I believe a large business would be started and carried on by those who now bring these sleepers, and their pay would far exceed that now earned by them. The reason

for the very low price of sleepers is, that the railway company will not take them beyond their own line, so they dictate their own price, and for lack of other employment to fill up time, they are brought in by the cultivators of the surrounding land, who would be very glad to exchange the occupation for one of a more profitable kind.

I believe from this casual source sufficient ores would be brought in to keep a furnace going, and the supply would be largely increased by those who would work their mines if they could see any prospect of converting their ores into cash, without the expense of sending them many hundred miles by railway, and probably thousands of miles by water—say, for instance, to Swansea.

The cost of sending the Silver Valley ores to Swansea was \$15—equal to 3l. 2s. 6d. If they could be smelted here the cost for freight would not exceed \$2.50=10s. 5d., or a saving of 2l. 12s. 1d. in freight. I give this as an instance within my own knowledge.

I hope capitalists in England will see their way to begin such works here, for it would do more than anything else to develop the mineral riches of this State, and would be profitable to those engaged in the work.

HENRY MOON, M.E.

Thomasville, North Carolina, July 28.

WEST CARADON MINE—SPECIAL REPORT.

Aug. 6.—According to instructions with which I had been favoured I made a thorough inspection of this mine on Aug. 1, and was much gratified to see the steady progress which the mine has made since I inspected it two years ago, verifying the correctness of the valuations and predictions of success which I then made.—Gilpin's Lode: In the adit level west the end has been driven for some distance through a very kindly lode, about 2½ ft. wide, worth 1 ton of copper ore per fathom. There is a cross-joint intersecting the lode in the forebush which has disordered the lode a little, but I attach no importance whatever to that, and the lode will soon gain its former value. Behind this end there are two stopes and a rise, which are in whole ground both over and under the level, where the lode varies from 1 to 2½ ft. wide, and will average fully 1 ton of ore to the fathom. At the present moment this part of the mine is badly ventilated, and cannot be made the most of, but there is a winze being sunk to the 17 which will be communicated in three or four months, and will then place it under far more favourable conditions for working and yield a better profit. In the midway level, about 9 fms. above the 17, east of the main cross-course, a good discovery has been made by driving east from the former old workings; the ore here is of a very rich quality, being a mixture of black oxide of copper and copper glance. The lode is well defined, about 2 ft. wide, and worth 12l. per fathom. In the 17, between this point and the main cross-course, there is a cross-cut driven north which reaches another lode that converges towards this, both in depth and as it extends east. The junction in sinking would be reached in 10 or 12 fathoms, and in this level no great distance will be required to reach the vertical junction, where splendid results may be looked for. In the 38, west of the main cross-course, I found that the winze had been holed, and the main part of the lode discovered and opened on for a distance of 10 or 12 fathoms, and nothing can be more satisfactory than the results obtained; the lode has splendid walls, and strong in every respect, averaging for the length opened on 1½ ton of ore to the fathom. To the east of the winze the lode has not been cut through, but from the appearance which it now presents it is very likely to retain its present value back to the cross-course, where it was lost, a distance of 14 or 15 fathoms. This completes my remarks on Gilpin's lode, any more than to say that you have ore ground enough discovered to take a great number of years to take away; but it must be understood that some little more time is required to get the ground opened out for stoping, &c., but it seems quite clear that success has been achieved, and there need not be any hesitation in laying down rails in the level to tram the stuff to shaft; indeed, it must be done.—Vivian's North Lode: In the 38, west of Hallett's cross-course, there are good stopes in the roof, from which were broken down some fine rocks of ore. Taking an average value of these stopes, they are looking better now than they were when I saw them on my former visit, and if my memory is correct the prospects here are very much better than they were at that time. The lode is 2½ ft. wide, and yielding from 2 to 3 tons of ore to the fathom, and there being plenty of whole ground above and below there is a work of many years to work it out. When it may be convenient I should strongly recommend what was proposed by Capt. Richards at the last meeting with regard to working Jope's lode—clearing up of Croucher's shaft, and the 50 cross-cut from the main lode; as this is the only way that Jope's lode can be reached, and the shaft being near the dressing-floors, the ore will be conveniently brought to the place of treatment. I have never seen a mine make more steady progress than this has done, and I can but congratulate the shareholders on the success which has been achieved.—JOHN ROBERTS, M.E., M.M.S.

NEW WEST CARADON—SPECIAL REPORT.

Aug. 6.—On the 1st inst. I made a very careful inspection of this mine, and the following are my remarks thereon:—The 38 fathom level is driven a great distance south on Hallett's cross-course, which has intersected several lodes, but none of them have been driven on for any great distance—not even sufficient to get away from the influence of the cross-course; and I have not, therefore, proved anything. I am given to understand that the object of this cross-cut is to prove what lodesthere are in the sett, and then open and work the best of them. No. 4 lode is driven on east about 5 or 6 fms., and the end appears now to be coming into ore ground. On the footwall there is a leader of very rich ore, which is being saved for the dressing-floors; and I have but little doubt that this will lead shortly to a good discovery.—Clymo's Lode: This lode is further south about 7 or 8 fms., and has been only driven on about 2 fms. from the cross-course.—Main Lode: In the 30 there are two stopes, one in the back and the other in the bottom, both being in the same run of ore; the lode is about 1½ ft. wide, and worth 1 ton of rich ore per fathom. There is a great deal of whole ground here, and I will pay for working for a long time to come. This mine has very fair prospects of success, but it appears to me that the mine is not worked with that energy which it deserves.—J. ROBERTS, M.E., M.M.S.

NEW CARADON MINE—SPECIAL REPORT.

Aug. 2.—This is one of those mines included in the celebrated group of rich mines situated on the south-west side of the Caradon hill, and known by the name of the Caradons. The New Caradon adjoins the West Caradon on its north side, and the South Caradon on the eastern side, and is in the same formation, containing in it several of the lodes of the South Caradon, and parallel lodes to those of West Caradon. The water being still in the mine, such particulars as may be thought necessary to give a full report, and a reliable opinion as to the chances of success, cannot be gathered in such direct manner as is altogether desirable; but I think that I have sufficient data, gathered from its internal character, and collateral evidence to arrive at a fair conclusion. The work that was done by the former company was very limited. From what I could gather the levels have not been extended far on any of the lodes, although the engine-shaft was sunk 50 fms. below the adit, and so the mine may be looked upon as being yet in its infancy, having the great advantage of an engine-shaft sunk to the 50. That two of those lodes are rich in copper is evident from the fact that there are springs of water issuing from them so strongly charged with copper and natural acids as to be precipitated in the usual manner. For working the mine there is the advantage of a powerful and never-failing stream of water, which will be used for pumping by a 40-ft. water-wheel, thereby saving the heavy expenditure in coals, &c. Looking, therefore, at all these facts, there is only one just conclusion that can be arrived at—that this mine will, on being vigorously worked, be another of the grand successes for which the district is celebrated.—JOHN ROBERTS, M.E., M.M.S.

WEST GONAMENA MINE—SPECIAL REPORT.

Aug. 4.—I have closely examined this property, and am fully convinced that you have a very valuable concern. Its situation is all that can be desired, and the formation seems to be the same character precisely as that of the Caradon Mines. The main lode is the same as that which produced the main bulk of ore that was sold from the old Gonamena Mines, and from its general characteristics, as seen in the adit level, which is now being driven, there can scarcely be a shadow of doubt that it will prove equally profitable in the West Gonamena. The adit level which is being extended westward is about 10 fathoms deep, and, as above stated, no one could desire a prettier lode at that depth. I observed in the forebush of the level some very rich oxide of copper. A pile of the same sort I found by the shaft, which had been saved in the driving the level, and on vaning a sample it showed the pile was very rich, and that the lode deserves a spirited trial. The plan which Capt. Richards has for working I heartily concur with, and is what I should recommend. There is another important point to which I must call your special attention—Gilpin's lode of the West Caradon crosses the south part of this mine, and they have in that mine, not more than about 3 yards from the boundary of this, a splendid lode of grey and black copper ore, and as Gilpin's north lode will form a junction with this I will venture to predict that there is in that part of the mine a splendid discovery to be made. I do not think that there are many new mines that offer better chances of success than this, and I fully believe that in proportion to the energy and skill with which the mine will be worked so will be the success.—J. ROBERTS, M.E., M.M.S.

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The invention of Mr. W. C. HORNE, of Old Charlton, relates to the use of phosphorescent substance in the manufacture of paper in such a way as to produce paper that will, when seen in a dark place after exposure to light, appear distinctly luminous, and will maintain its luminosity for a considerable time—say, for example, throughout a night, without re-exposure to light which paper may with great advantage be used for various useful purposes, such as (amongst others) for labels for match boxes, luggage labels, labels for bottles (especially for bottles containing poisons), labels for crates containing fragile goods which by being thus distinguished will be rendered less liable to rough treatment when being moved about on dark nights. Also for wall paper, designs blocked upon which may be highly ornamented whilst such paper will be serviceable for (to a useful extent) lighting up passages and chambers, especially water closets and other places wherein only moderate light is required; for writing paper and envelopes; business, private, and Christmas cards, and for advertisements, and especially for railway coach tablets, which affixed to the ceilings and backs of compartments will serve the two-fold purposes of producing prominent announcements and rendering the carriage sufficiently light to enable lamps to be dispensed with when passing through tunnels during the day time. The material used is sulphide of calcium, and he takes care that it is of a quality that will, after exposure to light, remain (as seen in a dark place) luminous for a considerable time (say, for instance, a whole night). Such a substance is that sold commonly as Puzey's luminous powder. This he either sprinkles over the paper pulp when in the paper maker's chest, mixing the pulp and powder thoroughly by stirring in proportions of about 70 lbs. of luminous powder to 100 lbs. paper pulp, or he makes with the luminous powder a paste by adding to it twice its weight of boiling water, and allows the mixture to stand for about 36 hours, but stirring it at intervals during that period. He then pours off any supernatant water, and thus obtains a product—a paste he terms luminous water paste. He mixes this luminous water paste with paper pulp in the condition known in the trade as a three-quarter stuff, so that the comparatively heavy luminous substance shall not be liable to settle and work out when the material is passing through the machine cylinders. Thus in carrying out his invention to 100 lbs. of ordinary paper pulp known as three-quarter stuff (by which he means a pulp containing less water than is contained in pulp as ordinarily used in making paper) he adds about 140 lbs. of luminous water paste, such as above referred to; with these he mixes a small percentage (say, 2 per cent.) of smalts or ultramarine if white paper is desired, and he stirs the compound well in the paper maker's chest; then he rolls it out in the ordinary way between cylinders, or treats it with hand sieves until it assumes the condition known to paper makers as the water leaf.

This water leaf he then tub sizes in the way usually practised by paper makers using size such as ordinarily employed by them. When desired he imparts to the size a waterproof character by adding to it a small percentage of tannin or bichromate of ammonia or other water-proofing substance, or the paper after being made may be varnished with caoutchouc or Damar gum varnishes, or other suitable water-proofing substances. His invention may, besides being applied in the manufacture of white papers, be employed also in conjunction with colours to produce coloured luminous papers, care being taken that no colours are used that contain detrimental substance such as lead.

ELECTRIC PROPULSION FOR TRAMWAYS.—Referring to recent sanguine accounts of experiments by the French Electrical Power Storage Company, whose principal director is the celebrated Mr. Simon Philippart, tending to prove that horse or steam tramways may be superseded by electricity, Mr. Gerald, one of the greatest electrical authorities, in an article in the *Lumière Electrique*, refuting in detail the position of Mr. Philippart's programme, and contending that electrical tramways would never pay, concludes as follows:—"As for animosity, I have none. Far from it. I sincerely admire the persistence and fertility of resources with which this question of accumulators is renewed, and a vitality sought to be given to it. But what good should we get by feeding on illusions? If the directors of the tramways, Mr. Philippart, the public, and myself should all be received, what would follow? An immense loss of time and money, a deplorable moral situation, and a putting back for years of electric enterprise. I see distinctly that the proposed plan is wrong—that to load carriages with lead to make them move could only be a resource if there were no other methods, and there are other methods. I see that the projectors are mistaken. I say it, and if I did not say it I should reproach myself. There is no question of sympathy or antipathy, but simply of truth."

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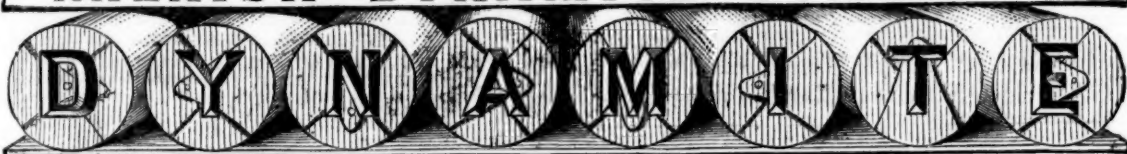
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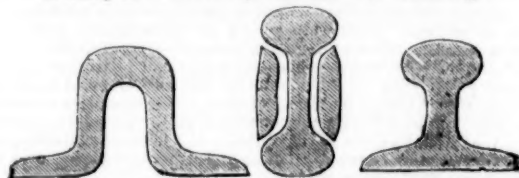
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20000 Leadhills, t, c, Lanarkshire	6 0	0	2 1/2	1 2	0 0	0 0
400 Leadhills, t, c, Lanarkshire	15 0	0	0	615	0 0	0 0
10000 Mellanear, c, Hayle	2 0	0	3 1/2	8 9	0 2	1 6
9000 Mellanear Mining Co., t, Wrexham	7 0	0	0	24 0	0 0	2 6
20000 Mining Co. of Ireland, c, t, c	7 0	0	0	118	0 0	0 0
11820 North Hendre, t, Wales	2 10	0	0	3 18	0 0	0 0
8146 Ditto	1 5	0	0	0 11	0 0	2 0
2000 North Levant, t, c, St. Just	13 6	0	2 1/2	4 16	0 0	0 0
4760 Penhall, t, c, St. Agnes	4 0	0	0	3 17	0 0	1 6
12000 Phoenix United, t, c, Linkinhorne	6 0	0	3	17 7	0 0	6 3
12000 Roman Gravel, t, c, Salop	7 10	0	7 1/2	9 11	0 0	0 0
50000 South Caradon, t, c, Cleer	0 10	0	0	10 5	0 0	0 0
4123 South Condour, t, c, Camborne	7 5	0	0	10 5	0 0	0 0
6000 South Darren, t, c, Cardigan	1 10	0	0	4 0	0 0	2 0
6000 Tintofret, t, c, Pool, Illogan	12 10	0	7 1/2	51 3	0 0	0 0
5000 Van, t, c, Llanidloes	4 0	0	5 1/2	25 13	0 0	6 3
2000 West Holway, t, c, Flintshire	1 0	0	1 1/2	1 0	0 0	1 0
6000 West Basset, c, Illogan	7 10	0	5 1/2	28 3	0 0	6 3
6000 West Kitty, t, c, St. Agnes	0 12	0	13 1/2	1 8	0 0	11 0
12000 Wheel Crebor, c, Tavistock	2 4	0	2 1/2	0 18	0 0	2 6
1024 Wheel Eliza Consols, t, c, Austell	18 0	0	4 1/2	5 12	0 0	0 0
6000 Wheel Grenville, t, c, Camborne	15 0	0	6 1/2	12 6	0 0	6 3
4295 Wheel Killy, t, c, St. Agnes	5 12	0	1 1/2	12 18	0 0	1 6
3000 Wheel Pevor, t, c, Redruth	10 1	0	4	8 13	0 0	4 0

FOREIGN DIVIDEND MINES

Shares.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500 Alamillos, t, Spain	2 0	0	2 1/2	2 10	0 0	2 0
130000 Almada and Tinto Consols, s, t	1 0	0	9 1/2	0 6	0 0	1 0
20000 Australian, c, South Australia	7 7	6	3	1 7	0 0	0 0
15000 Birdseye Creek, c, California	4 0	0	3 1/2	1 4	0 0	0 0
30000 Bratsberg, c, Norway	2 0	0	2 1/2	0 2	0 0	0 0
130000 California, c, Colorado	1 0	0	1	53 7	0 0	0 0
20000 Cape Copper Mining, t, c, South Africa	8 0	0	2 1/2	14 6	0 0	1 0
60000 Colorado United, t, c, Colorado	3 10	0	3 1/2	2 9	0 0	1 6
50000 Copiapo, c, Chile (24 shares)	3 10	0	3 1/2	3 9	0 0	3 0
70000 English & Australian, t, c, B. Aust.	2 10	0	1 1/2	3 9	0 0	3 0
2000 Eng. Aus., c, Viet. (20000 o.)	1 0	0	0	0 3	0 0	8 3
25000 Fortuna, t, Spain	2 0	0	3 1/2	8 4	0 0	2 9
60000 Frontino & Bolivia, c, New Gran.	2 0	0	1 1/2	0 11	0 0	0 0
270000 Henriett, t, c, Leadville, Colorado	1 0	0	0	0 9	0 0	0 0
200000 La Plata, t, c, Leadville	2 0	0	1 1/2	19 3	0 0	0 0
5000 Linares, t, Spain	3 0	0	3 1/2	0 10	0 0	0 0
20000 Mariella Iron Ore, t, Spain	10 0	0	4	2 10	0 0	0 0
165161 Mason & Barry, c, Portugal	10 0	0	1 1/2	2 10	0 0	0 0
60000 New Quebrada, c, Venezuela	5 0	0	4 1/2	0 9	0 0	3 6
1000 Ditto, Debentures	100 0	0	105	6 per cent.		
50000 Panuco, c, Chile	4 0	0	6 1/2	1 15	0 0	0 0
25000 Patagony, c, Brazil (in 6000 £1 pd.)	0 10	0	0	0 1	0 0	0 0
1400 Pontbiquet, t, France	20 0	0	12	29 11	0 0	0 0
100000 Port Phillip, t, c, Floures (22 shares)	1 0	0	3 1/2	3 0	0 0	1 0
50000 Rara Fortuna, t, c, Argentina	1 0	0	0	14 8	0 0	0 0
54000 Richmond Consol., t, Nevada	0 0	0	7	6 1/2	0 0	5 0
24532 Rio Tinto, c, Mortgage Bds., Huacila	100 0	0	102	5 per cent.		
325000 Ditto, shares	10 0	0	21 1/2	2 18	0 0	0 16
40000 Santa Barbara, c, Brazil	0 10	0	0	0 12	0 0	1 0
120000 Scottish-Australian Mining Co., t	1 0	0	2 1/2	15 p. cent.		
80000 Ditto, New	0 10	0	1 1/2	2 0	0 0	0 0
22500 Sierra Butte, c, California	2 0	0	1 1/2	2 0	0 0	0 0
40625 Ditto, Plumas Eureka	2 0	0	1 1/2	2 0	0 0	0 0
253000 St. John del Rey, t, c, Stock and multiple	1 0	0	1 1/2	1 14	0 0	0 0
160000 Tamarit, c, c, Spain (587330 issued)	2 0	0	6 1/2	6 18	0 0	0 11
625000 Tharsis, t, c, Spain (587330 issued)	2 0	0	6 1/2	6 18	0 0	0 11
20000 Tolima, c, Colombia (A & B shares)	5 0	0	6 1/2	2 16	0 0	0 5
25000 Victoria (London), c, Australia	1 0	0	0	0 13	0 0	0 8
100000 Victorine (Nevada, U.S.) Deb. Bds.	1 0	0	0	0 2	0 0	0 6
5000 Western Andes, c, Colombia	5 0	0	5 1/2	3 18	0 0	2 6
2100 W. Prussian (58000 pref. st. £10 pd.)	10 0	0	10	4 0	0 0	0 8
64000 Yorke Pen., c, South Aust. Pref. t.	1 0	0	1 1/2	0 3	0 0	0 3

† Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.	Paid.	Last wk.	Clos. pr.
25000 Aberduna, t, Denbigh	1 10	0	1 1/2
30000 Alston United, t, c, Cumberland	1 0	0	0
12000 Anderton, t, c, t, Devonshire	1 0	0	1 1/2
12000 Asheton, t, c, Carnarvonshire	5 0	0	0
12000 Bedford Unit, t, c, Devon (21 sh.)	1 0	0	1 1/2
30000 Bodidra, t, c, Denbighshire	1 0	0	0
10000 Brada, t, c, Isle of Man	1 0	0	0
30000 British, t, c, t, Wrexham	1 0	0	0
20000 British Manganese Company, t	1 0	0	1 1/2
30000 Beano Consols, t, c, Flintshire	1 0	0	1 1/2
20000 British United, t, c, Cardigan	1 0	0	0
12000 Collaombe Consols, c, t, Lamerton	0 2	0	5 1/2
30000 Carn Carnarvon, t, c, Camborne	1 0	0	1 1/2
30000 Carnarvon, t, c, t, Denbighshire	1 0	0	0
37500 Carnarvonshire Cons., t, c, Llanrwst	1 0	0	0
6000 Cathedral, t, c, Gwynedd	1 3	0	1
20000 Central Fodale, t, c, Isle of Man	1 17	0	6
25000 Cood-y-Fedw & Pant-y-Buarth, t	1 0	0	1 1/2
2450 Cook's Kitchen, t, c, Illogan	30 14	9	27 1/2
10000 Cornwall Great Cons. (4500 issued)	1 0	0	0
30000 Creiglog, t, c, Denbighshire	0 17	0	3 1/2
30000 Crook Burn, t, c, Cumberland	0 17	0	3 1/2
45000 D'Eschby Mount, t, c, Llanrwst	1 0	0	0
12000 Derwent, t, c, Durham	1 0	0	1 1/2
60000 Devon Friendship, t, c, s, Tavistock	1 0	0	0
12000 Devon Great United (21 shares)	1 5	0	0
50000 Drakewall, t, c, Calstock	0 15	0	6 1/2
12000 East Blue Hills, t, c, St. Agnes	0 5	0	0
6000 East Botallack, t, c, St. Just	1 0	0	1 1/2
6144 East Chiverton, t, c, Perranarabute	4 19	0	3 1/2
30000 E. Craven Moor, t, c, Pateley Bridge	1 0	0	0
15000 East Devon Cons., t, c, Buckfastleigh	1 0	0	2 1/2
30000 East Herodfoot, t, c, Liskeard	1 0	0	0
20000 East Long Rake, t, c, Wales	1 0	0	1 1/2
25500 East Roman Gravel, t, c, Salop	1 0	0	3 1/2
100 East Tregombo, t, c, Marazion	5 0	0	0
18000 East Van, t, c, Llanidloes	5 0	0	0
2048 East Wheel, t, c, Helston	17 8	0	1 1/2
100000 East Wheel, t, c, Newlyn East	1 0	0	0
12000 Frongoch, t, c, Cardigan (11000 sh. lss.)	2 0	0	1 1/2
12000 Gawnock, t, c, Tavistock	1 0	0	0
40000 Glas. Car. (30000 sh. £1 pd., 10000 lss. p.)	1 0	0	3 1/2
30000 Gobbett, t, c, Devon	1 0	0	0
10000 Goddards, t, c, Carnarvon	1 0	0	1 1/2
30000 Goginan, t, c, Cardigan	1 0	0	0
25000 Goodveer, t, c, Cleer	1 0	0	1 1/2
8500 Gorse and Merlyn Cons., t, Flint	2 10	0	3 1/2
20000 Great Dyliff (10000 sh. issued)	1 0	0	0
30000 Great West Chiverton, t, c, St. Agnes	0 8	0	3 1/2
6000 Great Wheel, t, c, Gwynedd	2 0	0	0
10000 Gwynedd, t, c, t, Flint (pref.)	4 0	0	1 1/2
70000 Gwydyr Amal, t, c, t, Carnarvon	1 0	0	0
12000 Herodfoot, t, c, near Liskeard	1 3	0	6 1/2
18000 Hington Down, c, Calstock	0 13	0	3 1/2
20000 Kirmichael, t, c, (20000 unissued)	1 0	0	0
25000 Kit Hill Gr. Cons., t, c, s, (21 sh.)	0 17	0	3 1/2
15000 Lady Ann, t, c, Llanarmon	1 0	0	1 1/2
15000 Langford, t, c, c, Gillingham	1 0	0	3 1/2
15000 Llandegla, t, c, Wales	1 0	0	0
5120 Lovell, t, c, Wendron	0 16	0	3 1/2
9000 Marke Valley, c, Linkinhorne	7 7	0	3 1/2
6000 Medlyn Moor, t, c, Wendron	3 15	0	0
8000 Mona, c, Anglessea	5 0	0	4 1/2
20000 Mona Consols, t, c, Anglessea	1 0	0	0
15000 Mostyn Consols, t, c, Flint	2 0	0	2 1/2
20000 Mostyn Consols, t, c, Flint	1 0	0	4 1/2
90000 Mounts Bay, t, c, Breage	1 0	0	3 1/2
6144 Mount Carbis, t, c, Redruth	1 15	0	3 1/2
12000 New Caradon, t, c, Cleer	0 5	0	3 1/2
2400 New Crook's Kitchen, t, c, Illogan	9 13	6	5 1/2
8000 New Dolcoath, t, c, Camborne	3 0	0	0
10000 New Great Wheel, t, c, Breage	0 10	0	0
10000 New Holmbush, t, c, c, Callington	3 0	0	0
6000 New Kitty, t, c, St. Agnes	1 0	0	2 1/2
15000 New Rednor, t, c, Callington	1 0	0	0
17500 New Terras, t, c, St. Austell	1 0	0	2 1/2
3500 New Tintofret, t, c, Lelant	6 0	0	0
12000 New Trumpet, t, c, Wendron	1 0	0	1 1/2
8000 New Van Cons. & Glyn, t	1 0	0	3 1/2
12000 New West Caradon, t, c, Liskeard	0 4	0	3 1/2
3000 New Wheel Pevor, t, c, Redruth	0 10	0	0
35000 New Wye Valley, t, c, Montgomery	1 0	0	1 1/2
12000 North Blue Hills, t, c, St. Agnes	0 2	0	3 1/2
5328 North Busy, t, c, Scorrier	1 15	0	3 1/2
10000 N. D'Eschby Mount, t, c, t, Carnarvon	1 0	0	0
25000 North Goginan, t, c, Cardigan	1 0	0	1 1/2
6400 North Green Hurth, t, c, (3400 l. pd.)	0 2	0	1 1/2

NON-DIVIDEND MINES—continued.

Shares.	Paid.	Last wk.	Clos. pr.
25000 North Grogwinlon, t, c, Cardigan	1 0	0	0
12000 North Herodfoot, t, c, Liskeard	0 13	0	3 1/2
50000 North Molton, t, c, m, t, Devon	1 0	0	0
6000 North Penstruthal, t, c, Gwynedd	2 19	0	3 1/2
2538 North Treskerby, t, c, St. Agnes	1 0	0	0
8500 Northern, t, c, Durham	8 17	10	0
4000 Okel Tor, t, c, c, Calstock	1 0	0	0
8000 Old Shepherds, t, c, Cornwall	1 0	0	0
60000 Owen Veau & Tregur, t, c, Marazion	2 0	0	0
12000 Pandors, t, c, Carnarvon	2 0	0	0
45000 Parys Corporation, t, c, Anglessea	1 0	0	0
7500 Pateley Bridge, t, c, Yorkshire	1 0	0	0
6000 Pedn-ar-dra, t, c, Redruth	4 3	0	0
12000 Pelyn Wood, c, Llanvilly	0 2	0	0
6000 Pennant, t, c, North Wales	5 0	0	0
12000 Pen-y-Oreid, t, c, Carmarthen	1 0	0	0
15000 Pen-y-Oreid, t, c, Flintshire	1 0	0	0
12000 Perran Consols, t, c, St. Agnes	1 0	0	0
12000 Perran Wheel, t, c, Redruth	0 2	0	0
6000 Polrebo, t, c, Cornwall	0 12	0	3 1/2
10000 Polrebo, t, c, Cornwall	1 8	0	0
10000 Port Nigel Syn., t, c, Carnar. (4000 lss.)	0 15	0	0
18000 Port Patrick, t, c, (21 sh. 12000 p. 10 p.)	1 0	0	0
12000 Prince of Wales, t, c, Calstock	1 4	0	3 1/2
36000 Russell United, t, c, Tavistock	0 15	0	6 1/2
30000 Silver Hill, t, c, Callington	1 0	0	0
50000 Sincin, t, c, t, Whitford	1 0	0	1 1/2
40000 Stridgate, t, c, Horrabridge	1 0	0	0
6000 South Carbis, t, c, Redruth	0 10	0	2 1/2
42000 So. Devon Unit, t, c, Buckfastleigh	1 0	0	0
5000 South Dolcoath, t, c, Illogan	0 19	0	0
8000 South Penstruthal, t, c, Gwynedd	3 4	0	2 1/2
6000 South Tolcarne, t, c, Camborne	5 11	0	5 1/2
2043 South Wheel, t, c, Illogan	3 19	0	6 1/2